kovelties.

FLETCHER'S

AUTOMETRIC STOPPER.

(LATENTED.)



THIS ingenious contrivance combines the advantages of a permanent stopper, which can neither break nor get fixed, and a graduated measure, always ready for use, and reserved for the one fluid for which it is provided.

By loosening the stopper, and slightly compressing the air-chamber attached, any required volume of liquid can be instantly withdrawn from the bottle. It being unnecessary to four out any of the contents, no spilling or other waste of liquid can occur. Moreover, the inconvenience incidental to the use of the ordinary minim measure, with the necessary washing and frequent breakage, is entirely obviated.

The AUTOMETRIC STOPPER is supplied in three sizes-to measure 30, 60, and 120 minims respectivelyand is graduated into 5-minim divisions.

PRICES.

30 minim, 10. each, or 9s. 6d. per dozen (not less). 60 and 120 minim, 1s. 6d. each, or 14s. per dozen (not

- "A simple and ingenious device."—THE LANCET.
- "Rapidly measured, and dispensing much facilitated." THE BRITISH MEDICAL JOURNAL.
- "As ingenious as it is simple. Invaluable to chemists and medical men." THE MEDICAL PRESS AND CIRCULAR.
 - "An ingenious invention."

Dublin Medical Journal.

- "An excellent invention, which might be advantageously applied for many other purposes."-EDINBURGH MEDICAL JOURNAL.
- "The original outlay for a few such autometricallystoppered bottles is not great, and their value will be apparent to every dispenser."—The Chemist and

FLETCHER'S

THERMO-HYDROMETER

It is scarcely necessary to insist upon the vital importance of noting the temperature of a liquid when determining its specific gravity. Hitherto it has been necessary to employ separate instruments for the two observations, such combinations as were available being clumsy, slow, and untrustworthy. In FLETCHER'S THERMO-HYDROMETER the bulb of the Thermometer is BLOWN IN ONE PIECE WITH THE BULB OF THE HYDROMETER, and, comes into direct contact with the liquid to be tested, thus ensuring the utmost sensitiveness. The Thermometer and Hydrometer scales being in juxtaposition on the same stem, A READING OF EACH CAN BE TAKEN SIMULTANEOUSLY,

EACH CAN BE TAKEN SIMULTANEOUSLY,

The Thermometer scale is graduated from 10° to 40° C., and the Hydrometer scale is divided into SINGLE DEGREES. Specific gravities can thus be determined with accuracy to the third decimal place. Each instrument indicates a range of 1050 degree; thus:—700 10 '750; '750 to '800; '800 to '850, &c. The series extends from '700 to 1'850.

TO ANALYSTS, MANUFACTURING CHEMISTS, PHARMACISTS BREWERS, &c., FLETCHERS THERMO-HYDROMETER will prove of incalculable value. The specific gravities of Spirits, Timetures, Oils, Syrups, Wines, Wort, &c., can be ascertained with a precision and rapidity impossible to attain with the ordinary Hydrometer.

impossible to attain with the ordinary Hydrometer.

PRICE, in Case, Single Instruments, 5 - each. Set of Six, in handsome Case, with divisions, 21 -

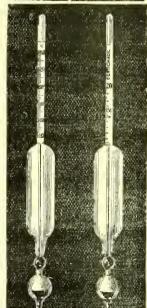
FLETCHER'S THERMO-URINOMETER.

This is an adaptation of Fletcher's Patent Thermo-Hydrometer for use as a Urinometer.

The instrument is an exceedingly clever and beautiful example of the glass-blower's art. The total length does not exceed six inches, and it is less than three-quarters of an inch in diameter. A most delicate and sensitive Thermometer is blown in one piece with the Urinometer, thus affording all the advantages of the Thermo-Hydrometer.

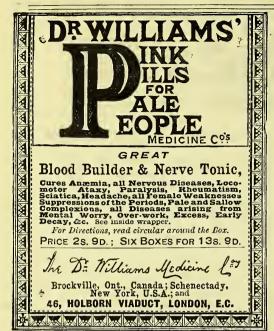
Armed with this instrument, the Physician when testing diabetic urine, for example, does not incur the inconvenience of having to employ a separate Thermometer, or of making random allowances for differences in temperature.

PRICE complete, with graduated Urine cylinder, in double leather Case, 7/6 each, 72/per dozen.



TO BE OBTAINED ONLY FROM

Fletcher, Fletcher & Stevenson, Manufacturing Chemists.
Offices: 21 Mincing Lane, E.C. Works: Holloway, London, N.



Manufactured in the United States.

Tele fraphic and Cable Address, "Adriatic London."

46 HOLBORN VIADUCT,
LONDON, E.C.

To Retail Chemists

United Kingdom & Abroad

Gentlemen!-

In consequence of the large amount of advertising which we are doing in local newspapers of the United Kingdom, we are in receipt of a large number of retail orders daily from private persons.

We are anxious that all such demands should be

supplied by the trade alone.

But until we know that Dr Williams Sink Fills are in the stock of Chemists throughout the country it would be imprudent to decline executing retail orders. Ne therefore appeal to you to communicate with us in order that we may have your co-operation in diverting this class of trade into your hands, and with this object we shall be pleased to furnish any Chemist with a package of a

thousand copies of a pamphlet now in the press, a specimen from the American Edition of which will be sent free of charge on request. Ne ask you to stock Dr. Nilliams 'Sink Vills, in which there is not the slightest risk, as we have contracted for a large amount of space and are daily extending our advertising, which has already placed our goods at the head of the market in America, where Dr. Nilliams' Pink Vills have a sale exceeding that of any other proprietory medicine. The sale in America may be gauged by the telegraphic order of which a fac-simile is appended, I which is a sample of

the kind of demand there experienced.

We are desirous of treating the trade with every courtery & consideration: we ask the co-operation of the trade to enable us to place the profitable business of retail supply in the hand of the trade.

Dr. Williams 'Vills are stocked by the Wholesale houses forders may be therefore placed through the ordinary

channels

Very truly yours . The Dr. Williams' Medicine lo



CABLE AND TELEGRAPHIO ADDRESSES:—
"BLONDEAU, LONDON"
"BLONDEAU, NEW YORK."

TELEPHONE No. 7659.

AMERICAN ADDRESS:-73-77 WATTS STREET, NEW YORK, U.S.A.

"VINOLIA" CASH PRICE LIST.

BLONDEAU et CIE. RYLAND ROAD, LONDON, N.W.

Our Terms are Cash. i.e. Cash with order, or on receipt of goods. Payment must be made within 10 days from the date of invoice to secure the Cash Discount.

	to days from the date of invoice to secure the cash biscour		811.	Prices	
		EAC	d.	PER DOZ.	
VINOLIA,	small stamped	î	9	16 9	
"	unstamped (Vinolia unstamped is for Compounding) Prescriptions only.	1	6	13 9	
	medium stamped	3	6	33 4	
? ?	" unstamped	3	0	27 4	
77	large stamped	6	ŏ	57 8	
57	,, unstamped	5	ŏ	45 8	
VINÖLIA	POMADE	5	6	50 4	
TATT VIN	IOLIA	7	6	68 6	
A T T T T T T T T T T T T T T T T T T T	POWDER, small (vinólia Powder)	7		16 0	
VINOLIA		1	9		
59	,, meurum white, pink, and	3	6	32 0	
79 77777 () Y T A	,, large ,	6	0	54 9	
VINOLIA		2	6	22 10	
"	" (American)	1	6	13 9	
,,	" in metal boxes	0	6	4 7	
,,	,, ,,	1	0	9 2	
VINOLIA	SOAP (Premier, for the "Million"), per box of 3 Tablets	1	0	9 2	
•	, 12 ,	4	0	36 7	
"	" 36	$\overline{12}$	0	110 0	
"	Each tablet enveloped in wrapper of artistic design.				
,,	" (Floral), per box of 3 Tablets	1	6	13 9	
,,	" , per Tablet, in Cartoon	0	6	4 7	
, ,	" (Balsamic, Medical), per box of 3 Tablets	2	0	18 4	
"	" (Otto of Rose, Toilet), " "	2	6	22 10	
**	,, (Vestal), per box of 3 Tablets	7	6	68 6	
VINÓLIA	SHAVING SOAP (Toilet), Sticks in silver-metal cases, small	1	0	9 2	
•	modium	1	6	13 9	
27	large	$\frac{1}{2}$	6	22 10	
"	;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;;	$\frac{2}{2}$	0	18 4	
"	(Vestal) Sticks in silven metal cooper	2	6	22 10	
"	,, (Vestal), Sticks in silver-metal cases		G	41 6	
VIVOLTA	Flat Cakes ,, boxes	4	0		
VINOLIA	SHAVING FOAM (Toilet), in collapsible tubes	1	0		
"))))))))))))))))))))))))))	1	6	13 9	
,, T. T. T. C. T.	,, (Vestal), ,, ,,	2	6	22 10	
"LYPSY	L" (a Coraline Emollient for the lips)	1	0	9 2	
,,	,, ,, in fluted silver-metal tubes	0	6	4 7	
,,		1	0	9 2	}
PERFUM	Lyrsyl is supplied in two tints—Rose-Red and White. ES—Jequilla, Marequil, Vinolia Bouquet	1	Q	14 0	
I DICE ON	110—bequitta, Marequii, vinona bouquet	3	0	24 0	
"	"MINIATURE SAMPLES."	3	U	44 U	
TINOTTA					
VINOLIA	SOAP (Otto of Rose, Toilet)	0	$1\frac{1}{2}$	1 0)
"	" (Balsamic, Medical)	0	$1\frac{1}{2}$	1 0)
7777777	" (Premier)	0	2($_{\rm gross}^{\rm per}$)18 4	:
VINOLIA	POWDER	0	3	2 0	
NOTE.—The	ese miniature samples can be obtained on artistic cards, the cards only being supplied free of charge attractive and profitable addition to the Chemists' counter.	the whole	formin	g a most	
Ondon	CO not and Clab mich Collaboration of Collaboration in the Collaboration of Collaboration in the Collaboration in				•

Orders under £2 net, and Cash with Order. £2 to £5 Order-special Cash Discount of 5 per cent. off above prices. £5 Order and upwards, Cash Discount of 10 per cent. off above prices.

Carriage paid on orders amounting to £5 and upwards to customers who have signed or who sign our cutting agreement, THESE TERMS ARE NOT AVAILABLE TO THOSE WHO SELL BELOW OUR STIPULATED MINIMUM CUTTING PRICES.

SPECIAL

"VINOLIA" EASTER OFFER

EXTRA 5 OR 72 PER CENT. DISCOUNT.

A nett profit of $57\frac{1}{3}$ per cent. on cost prices.

We will execute an order until Easter Tuesday for "Vinolia" Soap and any of the other Preparations manufactured by us amounting in value to not less than £2 on our very best wholesale terms, and allow an extra 5 per cent. besides. On orders amounting to not less than £5, we will allow our very wholesale terms and $7\frac{1}{2}$ per cent. besides. Terms CASH.

This offer will not be prolonged.

On £2 orders cases will be sent free, and carriage will be paid but to those only who have signed our cutting agreement.

No orders amounting to less than £2 nor more than £25 will be executed on these terms.

These terms will nett a profit of 57½ per cent. on cost prices, and in the case of the Perfumes much more. Considering the unprecedented demand for "Vinolia" Preparations from year's end to year's end, would it not be more to your advantage to push them than to interest yourself in any other Preparations in the market? There is a good living profit in them. Why pay rent, work for others, lock up capital, and do business for fun? "Vinolia" preparations are half sold when shown on the counter. The demand is large, profits good, and trade protected. Note this one fact: when ready sales, large turnover and substantial profits are taken into account, there is no soap in the market to compare with "Vinola." Price list on opposite page. Don't dabble in imitations.

BLONDEAU et CIE.,

Ryland Road, London, N.W.

1 April 1, 1893.

THE LIVERPOOL SCHOOL OF PHARMACY,

24 NEWINGTON, LIVERPOOL.

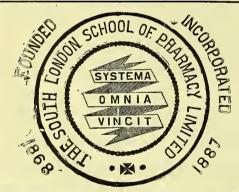
Principal-Mr. R. C. COWLEY, Ph.Ch.

THIS School was carried on for many years under the late Mr. WARD, during which time it was eminently successful. Mr. COWLEY, having been under Mr. WARD'S personal supervision for some time, and having carefully observed his method of teaching, feels convinced that upon these lines only can the high reputation of the School be maintained. In further proof of this, he has during Mr. WARD'S ittness, and since while directing the work of the School, been encouraged by the success of so many students, proving a thorough knowledge of the work required for the examination is imparted.

The curriculum of this School has been submitted to and approved of by the Council of the Liverpool Chemists' Association, who have appointed the following gentlemen to visit the School from time to time, and otherwise control the study :-

Messrs, T. F. ABRAHAM, M. CONROY, F.C.S., C. SYMES, Ph.D.

The next Full Course commences on April Students are requested to enter their names early.



325 KENNINGTON ROAD, S.E.

LECTURERS-

Chemistry, Physics, and Botany, DR. MUTER, F.R.S.E., F.I.C., F.C.S.

Materia Medica and Pharmacy, MR. DODD, F.c.s.

> Analytical Chemistry, MR. DR KONINGH, F.I.C., F.C.S.

Classics, and Matnematics and Mechanics, MR. TOWNSEND, A.C.P. and London Mat.

Assisted by an efficient staff of Demonstrators.

The tees at this School are absolutely inclusive, and there are on extras of any kind. The Directors spare no expense in rendering the shoustion thoroughly efficient and in maintaining the very high percentage of success uniformly obtained by the students for the last 20 years. The Dispensing department is most commedious and perfect, and no extra charge is made for its use.

The new Lacoratory for practical instruction in Manufacturing Pharmacy

is new in full work.

The Sohool being usually full, intending students should secure their place shelorshand.

For cyllabus, &o., apply by letter addressed to the Secretary.

WESTMINSTER COLLEGE

TRINITY SQUARE, BOROUGH, LONDON, S.E.

Principals: Messrs. WILLS & WOOTTON.

THE LARCEST AND MOST SUCCESSFUL SCHOOL IN CREAT BRITAIN.

The next Course of Lectures for Preliminary, Minor, and Major will be commenced on Monday, April 10. Intending students should enter at once.

At the Pharmaceutical Examinations held in January, the following Students of this College were successful:-

- following Students of this College were successful;—

 Mr. H. E. Dwelly (Major) Streatham
 J. H. Barnes, Loudon
 E. R. Belton, Lee
 W. H. Butcher, London
 W. Clugston, Castletown
 S. A. Clyde, London
 T. F. Grindley, Mold
 J. Johnston, Carlisle
 H. J. Jones, Pontypridd
 J. Lewis, Llandovery
 Mr. C. Wass, Wellingboro'.

 Mr. C. Wass, Wellingboro'.
 - W. E. H. Richardson, Romsey P. Rive, Jersey C. H. Robinson, Loftus-in-Cleveland T. W. Salmon, Stockton-on-Tees G. F. Smith, London A. E. Stafford, Nottingham

PRELIMINARY.

Mr. C. E. Anquetil, London Mr. G. Gili, London Mr. G. P. Reade, Loudon Mr. G. P. Reade, Loudon.

Besides the above, several Students passed by means of the postal system. Names on application.

N.B .- The names of the successful students of this College are published-

Because the Principals are proud of the students they have trained, and of their success at the Examinations.
 Because a published list of successes furnishes a more reliable guide to intending Students than a mere statement of figures.

For Prospectus, containing full particulars and fees, E. WALDEN, Secretary. apply to

ESTABLISHED 1882.



INCORPORATED

THE CITY SCHOOL OF CHEMISTRY AND PHARMACY, LIM.

27 CHANCERY LANE, LONDON, W.C.

For terms and particulars apply REGINALD HARRISON. SECRETARY.

SHEFFIELD COLLEGE OF PHARMACY. PRINCESS BUILDINGS, THE MOOR, SHEFFIELD.

PRINCIPALS-Messrs. GREAVES and TURNER.

Results of Examinations.

MAJOR.

.. Mexborough.

At London three gentlemen passed at FIRST attempt.

JANUARY MINOR.

At London three gentlemen passed at FIRST attempt. In Ediuburgh three out of four passed, viz.:—

Mr. E. BURDETT. Nottingham.

Mr. T. H. FOX Batley.

Mr. J. E. JONES Swinton.

Mr. E. J. LOOSMORE Swansea.

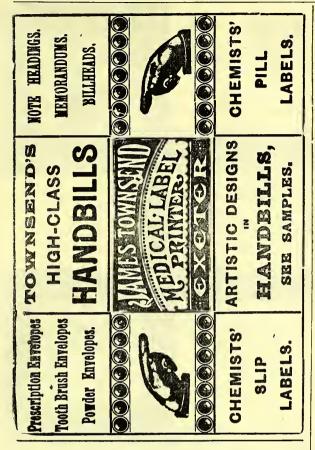
Mr. J. P. NORWOOD Doncaster.

Mr. D. S. WARK Lincoln.

NAYT tarm for Inter Proceedings.

Next term for July Exam. begins Monday, April 10, 1893,

for which apply early. Prospectus, with full particulars, on application.



Now Ready, with 76 Illustrations, 8vo, 8s. 6d.

A Practical Handbook to the Processes of the British Pnarmacopœia, especially designed as a Guide for the Student or Apprentice, and Adapted as a Work of Reference for the Pharmacist; containing also Concise Notes on

PILL-COATING, COMPRESSED TABLETS PASTILS, SURGICAL DRESSINGS,

And many other Non-official Preparations, with a Glossary of Terms. By

R. A. CRIPPS, F.I.C., M.P.S.

London: J. & A. CHURCHILL, 11 New Burlington St.

SPONGE IMPORTERS.

M. **PETERSON**

(BSTABLISHED 187(),

75 ST. ANNE STREET, LIVERPOOL.

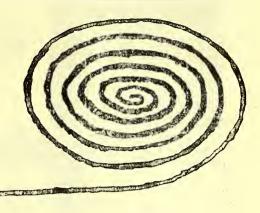
FOR HOME FOREIGN & COLONIAL MARKETS.

ONDON HOMEOPATHIC HOSPITAL AND MEDICAL MOHOOL. GREAT ORMOND STREET, BLOOMSBURY, W.O.

President-THE LORD EBURY. President—THE LORD EBURY.

ontains 90 Beds, and being entirely unported by Voluntary Contributions, Donations and Annual Subscriptions are earnestly solicited. The Hospital is always open to the inspection of visitors, and Clinical Instruction is given in the Wards and Ont-patient Department to Medical Students and Practitioners. It possesses a valuable Library of Homosopathic Publications, which Medical Men are invived to study. They are also invited to visit the Dispensary. The In-patients rumber over 700 annually; the Out-patients nearly 9,000 annually. The nr.saber of Patients treated since the inauguration in 1849 exceeds 215,000. It has a staff of 43 Nurses for Ward Nursing and Mursing Invalids at their residences.

G. A. CROSS, Secretar J-Superintendent,



If you are in Business

you naturally have something else to look after besides advertising it.

The manufacturing or buying, the selling and correspondence with customers, all have a claim upon your attention.

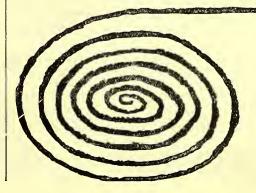
My part of the commercial world is advertising. Upon this one point I concentrate my entire resources. Surely I can conduct this branch of your business more economically than you can yourself.

A trial is solicited.

F. W. SEARS,

Advertising Agent,

138 Fleet Street, London.





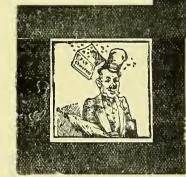


It is acknowledged by the Trade that

"FLY CEMETERY" THE

Is the most saleable Fly Paper ever introduced. It is non-poisonous, and the enormous annual increase in the sale of it is positive proof of its popularity. Many Chemists sold more "Fly Cometeries" last year than they ever did in their lives of all the other fly papers put together.

Samples, Testimonials, and Price on application to TUNBRIDGE & WRIGHT, READING.





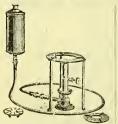
GENERAL PRINTERS, LITHOGRAPHERS, ENGRAVERS, ETC. TURNSTILE, HIGH HOLBORN, LONDON, W.C.

AND ASSORTED COLOUR PAPERS,

IN COLOURS, and Specially Designed for Chemists' Advertising. PLEASE WRITE FOR SPECIMENS.

Price Lists, Pumphlets, Circulars, Billheads, Memorandums, Cards, and all kinds of Printing and Stationery required by Chemists, at most Moderate Prices.

AGENTS for REGISTRATION of TRADE MARKS.



A Perfect Substitute for Gas. More Portable, more Economical than Gas.

Invaluable where there is no Gas, or where Gas cannot be used

The most Perfect Bunsen Barner.

NO WIOK. SIMPLE. INDESTRUCTIBLE.



PATENT RAPID SYPHONS

One stroke of the Piston One stroke of the Piston sets the Syphon going in-stantaneously. Made in every Material—IRON, LEAD, COPPER, BRASS, GLASS, EBONITE.

BEREND & CO., 61 Fore St., LONDON, E.C.

THE DEMAND

FOR THE

SENSITISED PAPERS

MANUFACTURED BY THE

Blackfriars Photographic and Sensitising Co.

IS

GREATER THAN EVER.

PRICE LISTS ON APPLICATION.

ALSO

ILLUSTRATED CATALOGUE OF CAMERAS, ETG.

FREE ON APPLICATION.

LIBERAL TERMS TO DEALERS.

POSTAL ADDRESS

General Offices & Sensitising Works, &c.—1 Surrey Row, Blackfriars Road, S.E. Showroom, Warehouse & Packing Department.—232 Blackfriars Road, S.E.

IMPERTANT NOTICE

JOHN SANGER & SONS,

DEALERS IN PATENT

MEDICINES,

DRUGGISTS'

SUNDRIES.

PERFUMERY.

LOZENGES,



MINERAL

WATERS,

AND

FANCY GOODS,

WILL REMOVE at EASTER

To Larger and more Convenient Premises at

2 WINSLEY ST., OXFORD ST., W.

(two minutes' walk from Regent Circus, and within easy distance of Portland Road Station, Metropolitan).

NEW & ENLARGED CATALOGUE

NOW IN THE PRESS.

As soon as arrangements are completed J. S. & S. will have on Show a Very Large and Varied Assortment of

DRUGGISTS' SUNDRIES & FANCY GOODS

OF ALL KINDS.

INSECT

DESTROYER

in the

WORLD

Sold

Every-

where

in

Canisters

at

6d. and 1s.

THE BEST INSECTIBANE



CERTAIN DEATH

TO ALL KINDS OF

INSECTS.

SOLE PROPRIETORS-

ROCKE, TOMPSITT & CO.

MELBOURNE, LAND 119, 120 LONDON.

KILLS

BEETLES,

COCK-

ROACHES

BUGS,

FLEAS,

&c., &c.

IF YOU COUGH

TAKE

GERAUDEL'S

PASTILIES

(Which Act by Inhalation and Absorption directly upon the Respiratory Organs)



COUGHS, COLDS, BRONCHITIS, HOARSENESS, CATARRH, ASTHMA, LARYNGITIS, &c.

THEIR EFFECT IS INSTANTANEOUS,

These Pastilles are now ready sellers, having secured an immediate and exceptional demand from the public.

They are being largely and continuously advertised.

ARE YOU CARRYING THEM IN STOCK?

Wholesale Houses can supply at shortest notice.

Trade price, 10/6 per doz, net. Retail price, 1/12 per case, with directions for use.



CONTAIN NONE OF THE SCHEDULED POISONS.

GÉRAUDEL'S PASTILLES are most agreeable to the taste, and contain the purest essence of Norway pine tar. They contain no narcotic, and, unlike numerous other cough remedies, are not required by the Act of Parliament to bear the label "Poison." They are entirely harmless, and can be used by old and young without danger.

GERAUDEL'S PASTILLES are admirable in voice affections. They should be used constantly by smokers, and by all whose vocal organs have any unusual strain to undergo. They are invaluable to those who are liable, owing to their occupation, to inhale irritating and noxious vapours or dust.

GÉRAUDEL'S PASTILLES were the only pine-tar preparation to which an award was given by the International Jury of the Exposition Universelle of 1878; Gold Medal, Paris, 1885; tried by the French Government, by Ministerial decision, on the advice of the Board of Health; authorised in Russia by the Imperial Government, with the approval of the Medical Board.

WHOLESALE DEPOT FOR GREAT BRITAIN-

FASSETT & JOHNSON, 32 & 33 SNOW HILL, LONDON, E.C.

THE CENTRE of ATTRACTION ASSURED BY TO ALL APPLICATION DISPENSING AND PARTICULARS. CHEMISTS. ACCURACY BRILLIANCY OF GLASS, SAVING A NEW PROCESS OF ANNEALING Z INEQUALLEI UNEQUALLED 5 IN BREAKAGE - CONTROL OF AND TO CE CAPACITY TINIT LUSTRATED ATIONS. See that 118,583" "GILBERTSON. No. is on the bottom of each bottle, which is a guarantee of superior quality by the INVENTORS. H. GILBERTSON & SONS, 11 St. Andrew's Street, Holborn Circus, E.C.

EXCHANGE COLUMN.

This Section of "The Chemist and Druggist" must be closed for press by Wednesday morning's post. of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of the part word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. pexword his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of the Chermator And Detegrated 2c Cannon Street, E.C.." and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of 6d. if the amount is £3 or under; and ls. if over that sum. We acknowledge receipt of deposit to both parties, and hold the money until we are satisfied that either the goods are returned to their original owner or

Postal orders and cheques sent as deposit must be made payable to Edward Halse, aud crossed "Martin's Bank (Limited)."

FOR DISPOSAL

Proprietary Articles.

What offers? Brodie's 10/6 Hair Dye, No. 2. W., 23 Qucen Street, Whitehavcu.

Formulæ.

For sale, 130 well-tried recipes, neatly copied in book, post 1s. 6d. Tully, Chemist, Hastings.

Literature.

Offers invited for 12 years' numbers of the Chemist and Druggist, 1880 to 1892 inclusive "Chemist," 45 Lorne Street, Kidderminster.

Shop Fittings.

Cintmeut-jars, pink dome tops, 2 lbs. 1s. 6d., 3 lbs. 1s. 11d., 4 lbs. 2s. 8d. each; No. 9 Wedgwood mortar 3s.; 1 doz. assorted compo. funuels, 3s. per doz. Frost, Beeston, Notts.

Dental.

Vulcariser, 3 flask, gunmetal, 60s.; engine, 75s.; lathe, 42s.; flask-press, 10s.; lathe-head, 10s., with chucks. Elliott Co., 30 Hanover Street, Elinburgh.

Miscellaneous.

Marion's 1-plate camera, two double dark slides, tripod, 30s. C. O. W., 8 Church Street,

Under cost, to clear .- 3 doz. enemas (Higginson's), seamless, black, vagina-pipe and shield, oval boxes, 30s. dozen, sample posted 2s. 8d.; dozen ice-bags, circular, 15s., sample posted 1s. 6d.; about 20 dozen nipple - shields, black seamless teat, bone shield, boxed, 2s. 3d. dozen; 5 dozen breast-exhausters, black fittings, boxed, 5s. dozen; 10 gross small black teats, seamless, 5s. gross; 2 gross syringes, in turned wood cases, \frac{1}{4}-oz, 2s. 3d., \frac{1}{2}-oz. 7s. 3d.; ear-syringes, boxed, \frac{1}{2}-oz. 2s. 9d., 1-oz. Es. 6d.; pill-boxes, drachm, 12 gross, 7s.; tooth-stopping, penny squares, wrapped pink paper, 2s. gross; sticks 3d., 2s. for 3 dozen; glyceriue syringes, vulcanite mounts, boxed, 10s. doz.; bone shields for feeders, 2. gross; packages free; cash with order, returned in full if sold. Gillman, 89 Camden Street, N.W.

WANTED,

- The Chemist and Druggist for September 31, 1892, Evans, Sons & Co., Hanover Street, Liverpool.
- At once, 5 gross split mineral-water bottles, plain, Codd's patent, glass stoppers. Fitton, Hertford.
- Latest editions; Bentley's "Botany," Attfield's "Chemistry," Pereira's "Selecta," Wills small "Materia Medica." Lowest price, "Incognitus," Holly Bank, Milnrow.
- Complete copies of the Chemist and Druggist for July 24, 1886; January 1, 1887; August 20, 1887; February 4, 1888; September 20, 1890; 6d. each offered. Apply, De Faye, Chemist, Jersey.

Addresses Wanted.

- The title and name of publisher of a book in. which is given the analysis of the different kinds of infants' and invalids' foods. A. Y. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.
- If George Dobson, some time ago assistant with a chemist at Redhill, will apply to J. Denton, 4 Argyle Street, Hull, he will hear of something to his advantage.

SHOP FITTERS.

SHOWCASE

MAKERS

GRAY'S INN ROAD, HOLBORN LONDON, W.C.

CHEMISTS' SHOP-FITTINGS, SHOWCASES, and UTENSILS of all descriptions, new and second-hand.

Chemists commencing, opening Branches, or making alterations, can be fitted throughout immediately, and save 25 per cent. by purchasing from our extensive stock.

Old Fittings Purchased or taken in Exchange.

Estimates Free.

CHEMISTS', DRUGGISTS', AND ALLIED TRADES EXHIBIT

TO BE HELD APRIL 22, 24, 25, 26, 27, 28, 29, 30, 1893,

AT THE

ROYAL AGRICULTURAL HALL, LONDON,

Immediate Application for Space is necessary from those Firms desiring Special Positions.

Full particulars, and Plan of the Hall, on application to JOHN BLACK (Sec.), Exhibition Offices, 2 Newcastle Street, Strand, W.C., Londons

BETHNAL GREEN.

Hydrogen Peroxide, Indigo Extract, Soluble Indigo Powder, Orchil, Cudbear, Logwood Extract, Fustic Extract, Aniline Dyes. Fine Lakes for Lithographic Inks, Vermilionettes, Drysalteries. Sole Agents in United Kingdom and Colonies, excepting Canada, for

The New Bleach, SODIUM PEROXIDE (Aluminium Co., Ltd.). d. 3: mple Bottles, dozen parcels

14. Giant

Extra Quanty,

26/-38/-

"BOROUGH" KETCHUP. WORCESTER, READING, HARVIE, YORKSHIRE, AND

SIL ER Extra

Quality. 5/3 5/9 6/6 6/3 6/9 8/6 9/-

MEDAL.

Per gross. 16/-Bottles, flat or round, reputed } pints Pint Imperial, round stoppered bottles 123-Gallon Casks (casks free)...

SAUCE, a Rich Fruity & Exquisite Flavour.

nearly & pint Imperial, 42/- per gross. Square Glass Stoppered Bottles, containing

Sample Bottles at 7/- per Grov.

Cash Price—20s. for 12½ Gallons.

dozen parcels

CASKS FREE.

School of Cookery, Crystal Palace, S.E.

January, 1883

Mr. PETER TYREB.

Sir,—I have been using the "Borough" Ketchup, and am very pleased with it Its flavour is excellent, both for all kinds of Savoury dishes and Soups; and I most certainly should advise every cook and housekeeper to use it, FOR I HAVE NEVEB YET MET ITS EQUAL.

[2]

MARIAN SMITHARD.

Lecturess on Cookery.

SILVER MEDAL SENT FREE

IT IS A FACT THAT THOSE WHO BUY FOR 3 13 4

LONDON, BOROUGH,

MANUFACTORY — 30 SOUTHALL PLACE, LONG LANE, CHIEF SCOTCH AGENCY-West Nile Street, GLASGOW.

TO ANY ADDRESS

The "Chemist and Druggist" Series

Which all Chemists ought to have and to read as faithfully as their British Pharmacopœia, viz.,

ALPE'S

"HANDY BOOK OF MEDICINE STAMP DUTY"

(Price 2/6, by post 2/9), and

"THE ART OF DISPENSING"

(Price 3/6, by post 3/10).

MANUAL OF PHARMACEUTICAL TESTING"

(B. S. PROCTOR, F.I.C. Price 2/6, by post 2/9).

Published at the Offices of "The Chemist and Druggist," LONDON AND MELBOURNE.

ILEX

CHEMIGA ESSENCE

LAMENESS in HORSES

A Genuine Remedy. Brings credit to all who sell it.

50 YEARS' UNBROKEN SUCCESS

SOLE MAKER AND PROPRIETOR,

FRANCIS E. ROOKLEDGE, CHEMIST. EASINGWOLD, YORK.

TO BE HAD OF USUAL WHOLESALE HOUSES.

BEEF JUICE.

A liquid preparation of the Choicest Beef, containing the Nutritious Albuminous principles in an unaltered and soluble form.

Because WYETH'S BEEF JUICE is Pleasant and Agreeable to the taste.

Possesses five times more nourishing properties than other similar preparations.

Nutrient and stimulant properties so proportioned that it can be retained by the stomach in extreme cases of debility.

Two-ounce bottle contains all the Nutritious Albuminous principles of three pounds of clear lean meat.

Because these and many other points of superiority have been brought to the attention of Medical Men, Nurses, and Hospitals.

Because they have proven the claims TRUE, the demand for WYETH'S BEEF JUICE has become constant, and constantly increasing throughout Great Britain.

For the information of the

RETAIL CHEMIST

who has not already stocked WYETH'S BEEF JUICE we make this announcement.

GENERAL AGENTS FOR GREAT BRITAIN AND FRANCE-

LONDON.

ROBERTS & CO.

PARIS.

DISTRIBUTING AGENTS FOR

LANCASHIRE—JAS. WOOLLEY, SONS & CO., Manchester. YORKSHIRE—GOODALL, BACKHOUSE & CO., Leeds. SCOTLAND—RAIMES, CLARK & CO., Edinburgh. MIDLANDS—F. H. PROSSER & CO., Birmingham. And all Wholesale Druggists and Chemists.

PREPARED BY

JOHN WYETH & BROTHER,

Manufacturing Pharmaceutical Chemists,

PHILADELPHIA, PA., U.S.A.

LONDON, 30 SNOW HILL, E.C.

Telephone Number, 1852.

Telegraphic Address-CHEMICUS LONDON.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS.

INDEX TO ADVERTISEMENTS APPEARING IN THIS ISSUE.

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page	Foot of Page	Foot of Page	Foot of Page
Acmé Chemical Co 48	Davidson & Grav	Liverpool School 10	Sanitary Wood-wool Co 61
Anderson & Co 23	Day & Sons Text 450	Lloyd, T. Howard, & Co 43	Sanitas Co The (Lim.) Text 450
Anglo-American Drug Co 44	Delacre, C 38	Lofthouse & Saltmer 45	Sauter's Electro-Homoeopathic
Apollinaris Co. (Lim.)Cover	Deacoo, H. J 55	London and Lancashire Insur-	Company 38
Arthur & Co	Di Luggo, D., & C.,	ance Co	Schlesinger, L 60
Assistants WantedCol. Sup. Austin & Co	Dodge & Olcott 41	London Homœopathic Hospital	Seabury & Johnson
Austin & Co 32	Dorothy Dentifrice 64	Medical School	Sears, & W
Barclay & Sons (Lim.) 49	Durrant & Co 60	Lorenz. H	Siles, Ig. 62
Barnett & Foster 27	Eade, G 60	Langin Co	Silicated Carbon Co Text 450
Barron Harveys & Co 40	Economic Printing Co 61	Macfarlan & Co	Smith & Hutchinson 40
Beecham Γ 53	Electrotypes 61	Macnair, A. & Co 60	Solazzi 31
Bennett, Sons & Shears 50	Elliman. soos & Co Text 4-0	March & Co 54	South London School of Phar-
Berdoe & Co Col. Sup.	Evans, Lescher & Wehb 5!	May & Baker (Lim.) Cover	macv (Lim.)
Berend, C., & Co	Exchange Column 18	May Roberts & Co Cover	Sozio & Andrioli 62
Berkefeld Filter Co	Fassert & Johnson	Mayfarth & Co 50	Speller & Co
Binghamton Oil-refining Co 46	Fink, F., & Co	Melin, C 50	Spence, J. H
Bishop, A., & Sons (Lim.) 35 Rlackfriars Photo Co 13	Fletoher, Fletoher & Stevenson	Millar, A., & Co	Stern, G. & G
Blair's Gout Fills	5, 61, Text 450	Moenich, O	Stokes' Check Till Co. (Lim.) 38 Symington & Co
Bloudern & Cie	Ford, Shapland & Co	Morrison, J, & Co	Cymington & Co
Boehm. F	Frazer & Green 58	Mumford & Co Text 450	Tangyes (Lim.) 50
Boord & Son 49	Fuerst Bros 39	Murdoch, J., & Co	Tangyes (Lim.) 50 Tbiellay, E. H. 60
Bovril (Lim.) 30	Géraudel's Pastilles 16	' '	Tidman & Son 45
Bramwell, E., & Son +0	Gilhert, J. A., & Co 60	Natali & Co 18	Toogood, W
Brathy & Hinchliffe (Lim.) 26	Gilhertson, H. & Sons 17	Natali, E 60	Towle, A. P 54
Brett, F. J Col. Sup.	Goodall, Backhouse & Co 31	National Chemical Co 48	Townsend, J
Bromley C 60	Government Sanitary Co 48	Ohlson, A 50	Treatt, R. C
Bronnley, H. & Co 64	Greeff, R. W., & Co 42	Orridae & Co	Truefitt, H. P. (Lim.) 32
Brunner Mond & Co	Grindlev & Co 48	Owbridge's Lung Tonic 52	Tunbridge & Wright 12
Burrough, J	Gueret Frères 26		Tyrer, P 19
Burroughs Bros. 61	Harroline Pill Co 55	Pascall, J 32	Vaccine Association 38,55
Burroughs, Wellcome & Co33.34	Hearon, Squire & Francis 34	Petersen & Co	Van der Lely & Simpson 61
Burton, W., & Fog	Herbert's, Dr. Pills 61	Poths & Co. 56 Powell & Barstow 60	Viney, H. W 38
Bush, W. J., & Co 25	Hirst, Brooke & Hirst (Lim) 25	Powell & Barstow	11103, 111 111 1111111111111111111111111
	Hooper & CoCover		Walker, Troke & Co
Cadbury Bros Cover	Howards & Sons	Raybould, Flesher, & Co 61	Washington Chem. Co 39
Calvert, F. C., & Co	Hudson & Co 60	Richards, J. M 6, 7	Watson & Sons 32
Chemist's Advated & Mineral Water Association	Isaacs, I., & Co 56	Richardson, J., & Co., Lcicester	White & Co
Water Association 24 Chemists Exhibition 18		(Lim.) 47	White, Fairchild & Co 61
Christy. T., & Co 60	Jackson, T 49	Robinson & Sons f8	Williams', Dr., Medicine Co 6,7 Wills & Wootton 10
City School of Pharmacy 10	Jewsbury & Brown 64	Rohinson, B	Witrofsky, E 63
Cockiug & Co	Johnsen & Jörgensen 56 Jones & Co	Rookledge, E 19	Woods & Son
Condy & Mitchell 35	0 ones & OU	Roshach Water 28	Woolley, Sons & Co Cover
Congreve, G. T 51	Laughland, Mackay & Baker 46	Rowntree & Co 30	Wright, Layman & Umney
Оюк, Fdward, & Co 66	Leo & Co	Rylands, Oan (Lim.) 29	Text 450, Cover
Coulter's Vaporizer Co. (Lim) 57	Levermore, Aug., & Co 60	•	Wyeth, J., & Bros 20
Cripps Galesic Pharmacy 11	Lewig, M. 61	Salamon & Co 60	77 13 20
Crocker & Co Col. Sup.	Liquor Carnis Co. (Lim.) 39	Sanger & Sons 14	Youldon, E 56

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear in the preceding Index are published in one of the other issues of this month.

ACHTRO ACED Fuerst Broz. Graeff, B. W., & Co. Lorenz, H. Morriz & Callard (Saltz)

ADVERTISING SPECIALITINA

Jaw.on, J. W.

ABRID & MINELS
Apolinarie Co.
Barnstt & Foster
Chemists' Aerated Watero
Association (Lim.)
Bilità & Son (Buthin)
Hay, W. | dris & Co.
Ingram & Royse
Jewabury & Brown
'chaunia String (Lim.
Kinmond & Co.
anin & Co. (Bourne) Sehweppe. J., & O'.

SITTO FLART
[See Syphofs and Essances.'
Harnett & Foster
Bratby & Hinchliffe (Lim.)
Gueret Fyres
Meadowcroft & Son
Rylands, Dan (Lim.)
Tyler, haywara, e. Uo.

ASHCIES ABROAD ASHCIES A HECAD
Australian Drug Co.
Sempthorne, Prosser & Co.
Lennon, S. C., & Co. ([N.Z.]
Peske, Allen & Co.
Prosser, Taylor & Co.
Booke, Tompsiti & Co. (Meibourne)
Soul, W. H., & Co.

ALBUMEN Viney, H. W.

ALEALOIDS Howards & Sons (Cinchoan AHMOMBA

May & Baker (Lim.) White, A., & Song Coolley, Song & Oc. APPARATUS Berend, O., & Co.
Hicks, J. J.
Orne, J., & Co (Scientific)
Ohlsen, A.
rerken, Son & Hayment
roths, H., & Co.

BAKING POWDER

BANDAGES
Bailey, W. H., & Son
Lobinson & Sons
Schutze, F., & Co. BEESWAX Boehm. F.

SICARB. SODA grunner, Mond & Co. (Lim.) Howards & Sons May & Raker (Lim.)

BISMUTH PREP. Hearon, Squire & Francis Hewlett & Sons Hewiste & Sons
Howards & Sons
May & Baker (Lim.)
Symes & Co. | Tyrer, T., & Co.
White, Alfred, & Sor g

Galenic Pharmacy (Crippe)
Harreave. Dr., M.
Squire, P. W.

BORAN . Howards & Sons Mack's Starch BOTTLES

Are & Calder Bottle Co. (Ld.)

Barnett & Foster

Bartett, R. H.

Bratby & Hinchliffe (Lim.)

avant, Son. & Uo.

Gilbertson, H., & Son.

Hearu, E. A., & Oo.

Isaacs & Co.

Johnson & Jörgenser

Kliner Bros.

Poths, H., & Co.

Bhirley, A. W.

Toogood, W.

"W. Brand Rottlag" Torgood, W.
"W. Brand Botsles"
Youldon. E.

BOXES Austin & Co (Carthorna)
Crowden & Garrod
Austin & Co,
Kent, G. B., & Sons
Aller oros.
Aobinson & Sons

RRITERER Crowden & Garrod

BUNSEN BURNERS Berend & Co BUTTER COLE, &.s. Boulton, J. & Co. (Lim.) Crawshaw & Co. Hatrick & Co. (Lim.)

CACHOUS Biyton, Astley & Co. Pascall, J. Warrick Brothers

CAMPHOR Pheret Bros.
Howards & Sons
Yav Rakar (1.1m.
Morrison, J., & Co. (Compred)
Webb, W. A.

CAPSULES JAPSULES

Denoual, J. (Medicinel)

Duncan, Flockhart & ve,

Avans, Sons & Co.

Hoover, B., & Co.

Lofthouse & Saltmer

Mason, C. E., & Co.

Kichardson, John, & Co. (Lei
gester), Lim

Warrick Brothers

CAREODIC ACID Calvert, F. C., & Cc.

CECRA SAGRADA Anderson & Co.
Duncan, Flockhart & Co.
Frans, Sons & Co.
Ferris & Co.
Moss, J., & Co.

GASTOR OIL Allen & Hanbury [Fuerst Brownisty & Co. (Aromaicum) Greeff, R. W., & Co.

CATALOGUE Maw, S., Son & Thompson May, Roberts & Co. Sanger & Sons'

CHECK TILLS

National Cash Till Co.
Patent Voucher Check Till Co.
(Lim.) Stokes, G. R., & Co. (Lim.)

CHEST PROTOTE: Chemists' Association (Lim. Hockin, Wilson & Co. Liverpool Patent Lins Co. Nowbery, F., & Sona Pattison, G. ' Solpor Broi

CHEMICAL BALANCES

CHEMICALS FINE ECALS

Bookm, P.

Bookinger, C. F., & Sohne

Boulton, J., & Co. (Lim.)

Boulton, J., & Co. (Lim.)

Flatcher Fletoner & Sievenscs

Fletcher Fletoner & Sievenscs

Fletcher Fletoner & Sievenscs

Goodall, Backhonse & Co.

Greeff, R. W., & Co.

Hill, A. S., & Son (Claim)

Hodgkinsons, Treacher &

Howards & Sons (Pharm)

Levermore, Aug., & Co.

Lotthouse & Salimer

Lorenz, H.

May & Baker (Lim.)

Morris & Callard | Moss & Co.

Smith, J. & H., & Co.

Tyrer, T., & Co.

Washington Chemical Co.

White, A., & Sons

White, A., & Sons

Mark & Elize D B OF BIERE D

GEXERIDE OF LIFE D Government Sanitary Co. National Chemical Co.

BELORODYNE Davenport (Browne's) Towle, A. P. & Son

CHLOROFORM. &c. Dnncan, Flockhart & Co.
Graeff, R. W., & Co.
Macfarlan, J. F., & Son
Salamon & Co. (Lim.)
Smith, T. & H., & Co.
Wright, Layman & Umney
"immermann. A. & M.

COGAINE-HYDRO. Howards & Sons
COCA WIND
Armbrecht, Nelson & (o. French Hygienie Soe
Stephen Smith & Co. (Hall's)

COCOA & CHOCLTE Oadbury Bros, | Christy & Bewntres & Co.

*OD-LIVER OIL Alleo & Hanharrs
Bleasdale & Co.
Burrougas. We'lcoms & Co.
dvars. Sons & Oo.
Greez, B. W & 10.
Hill. A. S. & Son
Hockin. Wilson & Oo.
Boblinson & Co.
Woolley, Sons & Co.

FOFFEE Symington, T., & Co. (Coffse "assence) White, Fairchild & Co.

JOLPSIELE TUEES Betta & Co.

OOM P. MEDICINES
Allen & Hanburys
Blyton, Actiey & Co.
Burrongas, Welloom & Co.
Fuerst Bros.
Hoopsr, B., & Co. | Leo & Co.
Lioyd, T. H., & Co.

JONCENT. LIQS.
Fletcher, Fletcher&storenson
Lloyd, T. H., & Co.

SOMPECTIONERY

OR FECTION BY
Blyton, Astiey & Co.
Crawshaw & Co.
Fuerst Brothers
Glibson, E., & Sons
Guest, T., & Co. | Pascall, J.
Sonthwell, C., & Co.
Warrick Brothers JORN CURES

rattison, G. Solport Bros. | Stone, H.

Haynes, G., & Cc. (Absorbent)
Bobinson & Sons (Absorbent)
Banger, J., & Sons

SESHD LINSEED

GRAHD LINSEED
Graham, W., & Go.
Manford, S. G.

BENTIPRIGES
Balley's Tollet Co.
Beecham, T.
Bronnier, H., & Go.
Dorothy Dentifrice Co.
Hancon, O.
16 was cary & Brown
Lakeman, J. J.
Qasion, H. O
Robertshaw & Co.
seerens, P. A.
Sutton, O., & Co.
If Compson & Capper
Wardel Browl, Wilson, A.
Woods, W. (Arcea Nut)

DISINFECTANTS FOOKS, T., and Co. Fletcher Bros. & Co. Gorernmant Sanitary Go. May & Baker (Lim.) National Chemical O. Sanitas Co. Sanitas Co. Sanitas Co.

SOS MEDICINES Spratts Patent (Lim.)

Artin & Saunders
Sailey, M., & Co.
Sarciay & Sons (Limited)
Seaulette Co.
Bank, H. W. Co.
Ohemists' Association (Lim.)
Themists' Association (Lim.)
Themists' Association (Lim.)
Themists' Mineral Water
Growden & Garrod
Aran, Lesoher & Webb
Arans, Sons & Co. (Savars)
Fordham, W. B., & Sons (Lim.)
Gilbertson, H., & Sons
Gockin Wilson & Go.
Authority of Co.
May, Secorts & Co.
Newbery, F., & Cons
Quelch, H. Co.
Sanger & Go.
Newbery, F., & Cons
Quelch, H. Co.
Sanger & Go.
Varne & Co.
Varne & Co.
Warne & Co.
Warne & Co.
Wilson M. Co.
Wilson M. Co.
Warne & Co.
Wilson M. Co.
Warne & Co.
Wilson M. Co.
Barrow M. Barrow M. Co.
Barrow M. Barrow M. Co.
Barrow M. Barrow M. Barrow M. Co.
Barrow M. DRUGGISTS' SUN.

DRUG MILLS
Burroughs, Wallenma & Co.
DRYSALTERIES Browning, J. H., & Co. Burton, W., & Sons

DYES, &c. Ayrton & Saunders Burton W. & sons Crawshaw & Co Hatrica & Co. (Lim.)

MAU DE COLOSES Farina. J. M., Hockin, Wilson & Co. (Farina Martin, Maria (Nnn) Moenich, Voar & Co. Mulhens, F.

ILECTRIC APPAR. Darton, F., & Co. Sent & Co. | Orme & Cc.

EMBROGATION

Evans, Sons & Co. Sanger & Son ENGRAVERS Barker, W., & Son Corsan, J. R.

ENEMAS

BSSENCES BSENC # Beokett, W. Bookhn, F. Boulton, J., & Co. Bratby & Hinchliffe (Lim.) Burgoyne, Burbidges & Co. Bnah, W. J., & Co. Flother, Fletcher & Stevenson

Anodali, Backhones & Hay, W.

Idris & Co.

May & Baker (Lim.)

Meadoweroft & Son.

Mewball & Mason

Stevenson & Howelf

Tyrer, P. (Anchories)

Tyrer, T., & Co.

Woolley, Sons & Co.

Allen, Stafford, & Sons
Boenm, F.
Bush, W.J., & Go.
Clay, Dod & Go.
Gooking & Go. (Japan PaperGooking & Oc. (Japan PaperGook & Oc. (Japan Pape syans, Sons & Cc. Hodgkinsons, Treasher Hodginsons, Trasher Clarke Clarke Lewig, M. May & Baker (Lime) Meadowcroft & Cons Ransom, W., & Son Sunciaturer, L. Boxio & Andrioti Stovenson & Howell Eymes & Oo. Treatt, B. O. Vogt, G., & Co. Warrick Bros. Witrofsky, E. Wright, Layman & Umxey

STHER THER DUNGS, Plockhart & Co. Dungsn, Plockhart & Co. Howards & Sons May & Baker (Lim.) & Poblins, J., & Co. Tyrer, T., & Co. White, A., & Sons Woelley, Sons & Co. Weight, Layman & Umnsy

BUCALYPTUS Blokfords | Bosisto's Drysdale, J. W. & Co. Evans, Lescher, & Webb Fletcher, Wletcher & Staven-

Fistoner, *18 ones & Co.
Son
Grimwade, Ridley & Co.
Laughland, Mackay & Baker
Murdoch, J. & Co.
Casmanian Eucalyptus Of
Vogt 9., & Co.

EXALGINE Kuhn, B.

STRACT MEAT ETRACT MEAT Srand & Co. Bush's Liquid Beef Danasyer's Peptone and Ex-tract of Meat foo. (Lim.) dris & Oo. (Viking Co. Liebig Co. Liebig Co. Liquor Carnis Co. (Lim.) wyoth, J., & Co. (Lim.) Wyoth, J., & Brother

EXTRACTS, FLUID MIRA ACTS, FUID
MIRA & Amburys
Anderson & Co.
Bargoyne, Burbidges & Co.
Brans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire & Francis
Hooper, B., & Co.
Loyd, T., Howard & Co.
Moss & Co.
Potter & Clarke
Vogt, G., & Co.
Wright, Layman & Umney

Fight, Layman & Umney

Fight We Hottle

Burroughs, Wellcome & Co.

(Therme Safe)

Chemist' Association (Lim.)

Frant, Sons & Co.

Tockin Wilson

Kuller Bros. Lynch & Co.

Mary, Eoberts & Co.

May, Eoberts & Co.

May, Boberts & Co.

Spence & Co.

FILTERIN # Berkefeld Filter Co. Fordham, W. B., & gons (Ld.) Sllicated Carbon Filter Co.

FLESH GLOVES Pattison, G. FLY PAPERS Ford, Shapiand & Co. Tunbridge & Wright

GRANULAR PREP Bishop, A., & Sons Evnns, Sons & Co. Hearon. Sonire & Francis Lloyd, T. H., & Co. W-ight, Layman & Umns

Fink & Co. (Arabis, &s.)
Greef. B. W., & Co.
Levermore, Aug., & Cr.
Vau der Lely & Simpson

HAIR PREP.
Anglo-American Drug Co
(Lim.)
Ohese brough Mnfg. Or.
Edwards & Co.
Truefitt, H. P. (Lim.)

"THERK H.P. (Lim.)

HIRES

dewball & Mason
Potter & Clarke

HIRE BEHR EXTS

Newball & Mason
Potter & Clarke BIHTAGOMOS

Epps & C).

Acone & Ashweii

Leath & Ross Thompson & Capper Watson & Water

HYPOPHOSPHTES Tancan, Flockhart & Co. Failows fistcher, Fistcher & Co. Symes & Co. Fyrer, Thomas & Co. INDIARUB. GOODS

Tyer Rubber Co. Warne, W., & Co. INHALERS INHALERS
Burrough, Welcome & Co.
Gockin, Wilson & Go.
Krohoe & Sessemann
Solrone, Co., The
Topcood, W.
INIX [SEE MARKING INKS]
Sewley & Draper
INSECTICION
Rocke Tomnsith & Co.

Rocke, Tompsitt & Co.

Steiner & Co.

INSURANCE
London and Lancashirs Firs
Losurance Co.
KETCHUD

Tyrer, P.

ROLA PREPRTN
Christy, T., & Co.
LARD
Bwen. J., & Sons
LINT

Liverpool Lint Co.
Newsome, C.
Robinson & Sens
LIQUORICE
Dennis Di Luego & Co.
Fergusson & Forster
LITHIA

Puerst Bros AURO A Hanburg Allen & Hanburg Allen & Hanburg Allen & Hanburg Grandel's Pastilles Albson, E., & Sons (Manife,) Hill & Son Jackson, T. Almes & Co. | Warrick Bros & A. O'HIN MEZ

Almea & C. | Warrier Bros |
A GHIN ME B
Bennett, Sens, & Shears
Barrongha. Wellcome & Co.
Gardner, W.
Gilbert, J.A., & Co.
Gilbert, J.A., & Co.
Grander, W.
Struthers & Craig (Sitting)
'ernor & rinciacrer (Kneading and Sitting)
'Exans, Sons & Co.
Renry, T. & W. (Calcined)
Hill & Sons, A S
Washington Chemical Co.

MAR, J. R. & J.
Bond, John (Grystal Palace)
(Ink and Pencils)

METH. SPIRITS, &c Boord & Son | Burrongh, J. Harvey, J. & W., & U. Jones & Co. Phillips, G., & Co. Smith, S., & Co.

METHYLENE Robbins, J., & Co MICROSCOPES Darton, F., & Co. Perken, Son & Rayment

Nestlé. H. (Condensed)

Nestlé, H. (Condensed)

MORPHIA

Macfarlan, J. F., & Co.

Suth, T. & H., & Co.

O'LLS. PAINTS, & C.

Browning, J. H., & Co.

W. W. J.

Pluchin, Johnson & Co.

O'LNITMENTE ASSES

Burgess, E., jun.
Burroughs, Wellcome & Co.
(Lauchine)
Christy, T., & Co.
Deacon, H. J. (Burgess)
-rindey & Co., 1/etre eum
Lloyd, T. H., & Co.
Bichardeon, J., & Co. Leicester (Lim.) (Anaspatine)

OPTICIANS Botwright & Grey Darton, F., & Co. Perken, Son & Baymant OTTO OF ROSE Fuerst Bros.

OXIDE OF ZINO Huobuck, T., & Sou (Lim.)

Huddles, T., & Soi (Lim.)
PAPAIN
Kuhn B. (Dr. Finkler)
FMPFEXFILTER GIL
Bush, W. J., & Oo.
Ooking & Co.
Strenson & Howell
FMPSINTA.
Armon & G.

Armon & Co.
Burroughs, Weileome & Co.
Burroughs, Weileome & Co.
Chaseaing & Co.
Fictcher, Fletcher & Stevenson
Greeff, k. W., & Co.
Kuhn, B.
Newery, F. & Sons(Ingluvin)
Stern, G. & G.
Warner & Co. (Ingluvin)
FIROLEUM

Allen & Hanburys Barclay & Sons (Lim.) Dee Oil Co. (Lim.) guerat Bros. (Jelly) Grindley & Co. (Jelry) Hatrick & Co. (Lim.)

grundley & Co. (Jeily)
Grindley & Co. (Jeily)
Hatrick & Co. (Lim.,
PTN TM EDORY & C.
Anglo-Amer. Drug Co. (Lim.,
Atkinson & Barker (Inimare
Preserv)
Sarolay & Sons (Lim.,
Beecham, T. (Plis)
Bow's, Dr., Liniment
Bromley, C. (Gout and Rhau.)
Chemists' Association (Lim.)
Clarke's Boond Mixture.
Congreye, G. F.
Dr. Williams' Pills
Sdwards & Son
"vans. Leseher & Webb
Fassett & Johnson
cenning's (Fowders)
Goodali, Backhouse & Co.
Hakka Cream(A.P.Bush&Co.)
Holloway (Pills and Oint.,)
Bovenden & Sons
Kreat Haiviva
Laley' Phesphodyne, &c.)
Charch & Co.
May, Koberts & Co.
May, Koberts & Co.
May, Koberts & Co.
Way, Koberts &

FOOD (Infants' Linyalide')
Allen & Hanburys
Renser's Pood
Rrand & Co.
Chibnall, H. B.
Evans, Sons & Co.
Soodall, Backhouse & Co.
Hearon, Squire & Fransis
Idris & Co.
Hearon, Squire & Fransis
Idris & Co.
Hearon, Squire & Fransis
Idris & Co.
Hearon, Squire & Fransis
Ross, J., & Co.
Ecster), Lim.
Neatlé, H.
FORMULA
Brooks, T.

BINGER ALE
Hav, W. (Essence)
Mills, R. M., & Co.
EL YCHEINE
Riyton Astley & Co.
Price's Gandle Co. (Lim.)
Watson & Sons
GOUT AND RHEU

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MATIC PILLS

"conjer Of Co. (Blat's)

EAR, WULAR PREP.

MARTIC PILLS

"conjer Of Co. (Blat's)

"Co. (Blat's)

"Co

PEROY. OF HYDR Burton, W., & Sons May & Baker (Lim.) Lobbins & Co.

PHARM. PREPS.
Allen & Hanburys
Anderson & Co.
Arthur & Co.
Barton, Harveys & Co.
Battley & Watts
Bosins. sarron, Harreys & Co.
sattley & Watts
Soens.
Soense Good Co. (Lim.)
Brady & Martin
Burgoyne, Burbidges & Co.
Surroughs, Wellcome & Co.
Chassaing & Co.
Delscre, Ch., & Co.
Duncan, Flookhart & Co.
Fletcher, Fletcher & Co.
Glies Sohacht & Co.
Greefi, H. W., & Co.
Hearon, Squire & Fransis
Howards & Sons
JeyesSanitary Compounds Co.
Keith & Co. (Conc. Tinethree
Lambert Pharmacal Co.
Mys. Bacc.
Depended Co.
Depe

PHOTOGRAPHIS PHOTOGRAPHIS
Artistic Photo Co.
sarciay & Sons i.dm.)
Blackfriars Photographis Ge
Blockright & Grey
Darton, F., & Co.
Fallowfield, J.
Fuerts Hro.
Longhton, G., & Sons
Howards & Son (Chemicals
Perica: Son (Chemicals
Perica: Son & Rayment
Tyrer, T., & Co.
White, Alfred & Sons
Zimmerman & Co.

PILL MACHINES Toogood, W. (Coasse; Werner and Pfleiderer

Allen & Hamburys
Allen & Hamburys
Allen & Hamburys
Anderston Apotheeariss' Hal
Beecham, Thomas
Bromley, C. (Gout and Rheu.)
Burgess, E., jun.
Davidson & Gray
Deacon, H. J.
Eade's Gout Pills
Evans, Sons & Co.
George, J. E.
Harroime Pill Ce.
Hearnoime Pill Ce.
Hearnoime Pill Ce.
Hearnoime Pill Co.
Mo Kesson & Robbins
Newbery & Sons
Eichardson, J., & Co. (Lim.)
Wand, S. [Pearl Coated)
Warner, V. & Co. (Co. (Co. Wills)
Wand, S. [Pearl Coated)
Will anns Dr. Medicine Co.
Wyleys & C. PILLS (Coated, &c.)

FODOPHYLLIM. &c. Keith, B., & Co. | Smith, T.

PLASTERS
Evans, Sons and Co.
Yebnson and Johnson
Seabury & Johnson
St. Da'm .c. A.

POLISHING Charshard Bradley & Bourdas (Alberture) Chancellor & Co.
Flesher, Raybould & Co.
Flesher, Raybould & Co.
Fordham, W. G. & Sons (Lim.
Cakey, John, and Sons

PORCELASITOODS
Togood, (E.e. Pots raviet,)
POULTRY FOOD
Spratt's Patent (Lim.)

PRECIP. CHALE Levermore, Aug., & Co.

FRINTING Bowers Bros.
Cersan I R (Green
Economic Printing Co. Ford, busplace . Townsend, J. Speller & Co.

PUMILINE Stern, G. and G.

Bochringor, C. F., & Schne Greeff, R. W., and Co. Howards and Sons Zimmermann A. & M.

Duncan, Flockhart and Co. Greeff. R. W., and Co. RUBBER

Tyer Rubber Co.

AOCHARIN
Allen and Hanhnrys
Burroughs Broa,
Burroughs, Wellooms and Co. SALIGIN

Macfarlan and Co.
Smith, T. and H., and Co.
Smith, T. and H., and Co.
S.A.LECTLIC ACED
Bnreyne, Burbidges and Co.
Fnerst Bros.
Knhn, B.
Zimmermann, A. and M.

Stern, G. and G. (Persella)

SAUCES, PICKERS Goodall, Backhonse and Co. Mason, G., and Co. (Lim.) Tyrer, P.

SHAVING Hovenden & Sons (Euxesis)

Gity School of Cheristry and Pharmacy (Lim.)
Liverpool School of Pharmacy
London Hemoopathic and
Madical School
Macchester Col. of Pharmacy
Shefiled School of Pharmacy
School of Pharmacy
School of Pharmacy
The School of Pharmacy
The School of Pharmacy
Westminster College

CEEDS Potter & Clarke

SBLTLOGMHES British Syphon Co.
avans, Sons and Co.
avans, Sons and Co.
avans, Sons and Co.
avans, Sons and Co.
avant, E., & Co.

STEED DID Fletobor Pros. & Co. Jeyes Sanitary Compound: Co.

SHOP FITTERS Bowling and Govier
"vgrave, J. and W.
Houseitt, S.
Josephs, P.
Natali & Co. | Natali, E.
"vchs, H., sp."
Treble, G., and Co.

Ayrion and Saunders

Parciay and Sons ('F')

Rondean and Con ('F')

Rondean and Co ('F')

Ronde Bos (

SODIUM PEROXD.
Burton, W., & Sone

SPECTACLES Botwright and Grey Darton, F. and Co. Perken, Son and Baymens

SPONGES Cresswell Bros. & Schmits Evans, Soos and Co. Paterson, M., and Co.

STAMPS (RTERME Hirkisson .J.

TARCE

Chancellor & Co. 'Wask's Blyton, Astley & Co. (Sulphur) Critchley (Glose) [Donble] Corsan, J. E. (advertising,

*TODDERS

Anstin and Co. (Sprinklers)
Pernett and Foster
Molin, O. Stipendum Stopper Co.

THE COLUMN Clark . S., and Co. Lim.

SUBAR Flatcher, Fletcher and Etevenson Gibson, R., and Sons

SUGAR OF MILE Boehin, Fredk.

STLPOMAL Bnrroughs, Wellcome end Go. Graeff, R. W., and Co. May and Baker (L!mited)

May and Baker (Limited)

SURGECA L
Ayrton and Sannders
Bailey, W. H., and Son
Bareley and Sense(Limited)
Brady & Martin
Ocknop, J. i.
Frzer & Green
Aarrison, T. H.
Haywood, J. H.
Krohno and Sesomana
Liverpool Patent Lina Co
Powell & Baratow
Quelch, H. C.
Richardson, John, & Co. (LeiReichard, C. C.
Robinson and Sense
Churte, F. and Co.
The Company of the Co.
White & Co.
White & Co.
Wood, F. | Wood, Vincen

STPROMS

Barnett and Foster
Brathy and Hinchliffs (L4.)
British Syphon Co.
Fordham, W. B., & Sons(Lm.)
Idris and Co
Kilner Bros. | Molin, C.

STREPS

Anderson & Co. Fletcher. Fletcher (Liquore) Idris and Co.

TABLETS

Oave. Johnson & Co. Ct. Tower St. Tes Co. Kearley & Tonge

TEETEING PADS

Shirley Brothers

THERMOMETERS Bailey, W. H., and Son Barclay and Sons (Lista.) Darton, F., and Co. Evans, Sons and Co.

Newbery, F., & Son.

Alie a Hanburys (Chrisma' Enrroughs, Wellcome & Co. (Lanoline) Dee Oil Co. (Lim.) Hovenden & Sons Quolch, H. C. Eowland, A., and Sens Tracitt', H. F. (Limited)

TOOTH PASTE Anglo-American Drug Co. (Lim.) Becoham, T. Jewbury and Brown Button, O, and Co. (Block) Wilson, A. (Bunter's) Woods, M. (Areca)

TRUSSES Bailey, W. H., an Ben Evans, Sons & Co.
Harwood, J. H.
White & Co.
Wood, V.

URETHANE

VETERINARY

BITA & Storoy | Ourling & Co. Lay and Son Day, Son and Hewita Ell'man, Sons and Co James, W. H. (Blisters) James W. H. (Blisters) Jayes 'Sanitary Comprande Lloyd, T., Howard & Co. Rookledge, F. E. Spratte (Dogs) Walker, Troke and G.

VACCINATION

Frazer & Green (Pads)
Sanitary Wood Wool Oo., Lim.
(Snield)
Vaccine Association (Lymph)

VALUERS AND TRISPE, ACTO Berdos and Co. Brett, F. J Orocker, G. B., & Gu. Orocker, G. B., Orridge and Co

hesebrough Manufetrine Oc VINOLIA(Superf'tt'a)

WEED KILLER

VINOLIA (Superf'tt's)
Plandan and "
WEED KILLER
aome Chemical Co. (Lim.)
WHOLESAEM AND
EXPET DRESSES
Alen and Hanher
Alle, Shaftord, and Sons
addition and Co.
Battley and Watts
Birrovine. Eurobiges and Co.
Battley and Watts
Birrovine. Eurobiges and Co.
Buth. W. J., and Co.
Buth. W. J., and Co.
Clay, Pod and Co.
Davy, Yatee & Bontledge
Delicre, Ch. & Co.
Evans. Sons and Co.
Evans. Sons and Co.
Fox. W., and Sons
Goods!! Backhous and Co.
Hill, A. S., and Son
Hill, A. S., and Son
Hill, A. S., and Son
Hodgkin lone. Trescher and Co.
Murdoch. J. R., & Co.
Potter and Clarke
Bichardson, J., and Co.
Murdoch. J. R., & Co.
Potter and Clarke
Bichardson, J., and Co.
Murdoch, J. R., & Co.
Potter and Clarke
Bichardson, J., and Co.
Murdoch, J. R., & Co.
Thompsoo and Capper
Walker, Trokeasae
Wolley J. S., Sons and Oc.
Thompsoo and Capper
Walker, Trokeasae
Willows, Francis and Butis
Woolley J. S., Sons and Oc.
From Hygienic Sogs, Coasiliandell Backhouse and the
Hirst, Broke & Hirst (Lim.)
(Orange)
Hirst, Broke & Hirst (Lim.)
(Orange)

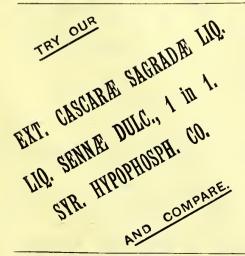
Hirst, Brooke & Hirst (Lim.)
(Orange)

Idris & Co. | Jackson, T.

Millar, A., & Co.

Robinson, R.

Smith, S., & Co. (Orange)





EXTRACT OF MALT. EXT. MALT WITH COD LIVER OIL CHLORODYNE INSEPARABLE AND COMPARE.

MURANO PLACE, **EDINBURGH** Telephone No. 7547.

Telephone No. 7547.

RADE

TOPS THE

ONLY PRIZE MEDAL.



LONDON, 1881.

(MEDICAL OPINION (SUPPLIED HIGHEST PRIZE MEDAL,



BRADFORD, 1882.

RAISED BY THE PERSISTENT ENERGY AND GREAT CARE OF CHEMISTS

	No. 01	
Year	Members	Dividend
1878	119	Nens
1879	350	Ners
1880	430	None
1881	540	None
1882	815	35
1883	708	5
1884	908	6
1885	1,193	8
1886	1,483	6

TRLEGRAPHIC ADDRESSES: Rubine, London. Chemists, Starbeck, Harrogate. Camwal, Bristol.

EXCLUSIVELY TO EMISTS & HOSPITAL

STRENGTHENED AND SUPPORTED BY THE APPROBATION OF THE MEDICAL PROFESSION

1	No.ef	
Year	Members	Dividend
1887	1,61%	73
1888	1,892	5
1889	2,031	73
1890	2,088	8 8
1291	2.163	10
1892	2312	10%

TELEGRAPHIC ADDRESSES: Rubine, London. Chemists, Starbeck, Harrogate. Camwal, Bristol.

This Company manufactures the various descriptions of Mineral Waters of the highest class and of specified formula, and supplies ONLY Chemists and Hospitals.

									PRI	CES										
Carbenate	ed Water	••	7.		<u></u>		. I	n Corkec Bots. 1/-	Syphone. 1/6	Lime J	uies	940	wa		•	p=q	69	1 	Pots.	2/6
Soda Soda	12	B.P.		ins to	Half-F	eai ^e	⇔ ⇔	1/. 1/.	1/6 1/6	Ginger		(ilans	•••	⇔	***		***	••	1/-	2/6 2/6
Petash Petash	98	B.P.	5 15	**	93		•	1/-	1/6 1/6		B.P.,	5 grain	s to Ha		1	-	-	-	1/6	2/6
Heltzer .		•••	**	***	⊶ "	0-0	₩	1/	1/8 2/6	Minera				-		⊶	∺	-	1 6	
Syphens, 24s. per dezen. Oasez—3 dozen 3s. 6d.; 4 dozen 4s. 6d.; 6 dozen 5s. 6d. each. Empties allowed for at same prices.																				
3d. per dozen charged extra for the delinery of Suphons in London.																				

SYRUPS.

In 26-oz. bottles, handsomely labelled and capsuled. Raspberry, Strawberry, Cherry, Red Currant, Black Currant, Pine Apple, &c., 8/- per dozen. Lime Fruit Cordial, 6/6 per dozen. Bottles charged 1/- per dozen, and allowed for on return.

> A holder (Chemist) of £1 share is entitled to all the advantages of this Association. SAMPLE CASE OF WATERS SENT FREE.

Handbills with Name and Prices supplied gratis to Shareholders.

The Chemists' Aerated and Mineral Waters Association, Limited, LONDON, HARROGATE, & BRISTOL.

W. J. BUSH & CO.'S PHARMACOPŒIA

ESSENUIAE OUES

Packed in Original 1-lb. Bottles.

Ol. Anisi Ang.

Ol.Amygd.Essent.Ang.

Ol. Anethi Ang.

Ol. Anthemid. Ang.

Ol. Carui Ang.

Ol. Caryoph. Ang.

Ol. Cinnam. Ver. Ang.

Ol. Copaibæ Ang.

Ol. Coriand. Ang.

Ol. Cubebæ Ang.

Ol. Juniperi Ang.



Ol. Menthæ Pip. Ang.

Ol. Myristicæ Ang.

Ol. Pimentæ Ang.

Ol. Santal. Flav. Ang.

ALL OWN DRAWING.

Ol. Bergamot., Extra

Ol. Eucalypti, Extra

Ol.Lavand.Flor.,Extra

Ol. Limonis, Extra

Ol. Rosmar., Extra

DIRECT IMPORTATION.

SPECIALLY SELECTED.

It is imperative that Chemists and others requiring Essential Oils for Medicinal purposes should purchase genuine and finest qualities only. These can only be obtained from W. J. BUSH & CO., who supply them as above, in 1-lb. Bottles, and guarantee their quality and purity. Nearly all Essential Oils offered in the Market are Impure.

W. J. BUSH & CO., MANUFACTURING CHEMISTS

DRAWERS OF ENGLISH ESSENTIAL OILS,

18 ARTILLERY LANE, LONDON.

Works-ASH GROVE, HACKNEY.

SYPHONS SELTZOGENES



SODAWATER
MACHINERY

AND APPLIANGES

BRATBY HINCHLIFFES

ANCOATS 146 MINORIES

MANCHESTER LONDON

81 ROBERTSON STREET, GLASGOW.

PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each. SELTZOGENES.

1 2 3 4 5 8 pint. 5/6 6/2 7/ 8/ 9/11 15/6 each. Including two funnels and stopper for charging. All our Seltzogenes are
manufactured on the wellknown "Fevre" System,
and each one is thoroughly
tested before leaving the
works.



GOLD MEDAL, Amsterdam, 1883. DIPLOMA OF HONOUR, Paris, 1887.

GUÉRET FRÈRES,

MACHINISTS, PATENTEES,

PARIS-72 BOULEVARD DE LA GARE, 72-PARIS.

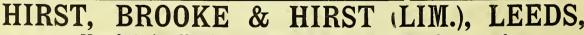
SYPHONS WITH SHORT LEVER, with Metal Tops of Pure Tin, carefully mounted, and the glass of the first quality.

GAZOSELTZ, for the instantaneous production of Aërated Beverages at table.

Anyone can use them.

"CONTINUOUS PROCESS" Apparatus complete, guaranteed without flaw in construction, possessing perfect action, and tested to a high pressure, while fulfilling every desirable condition of sanitation and economy.

OUR GENERAL CATALOGUE AND PRICE LIST WILL BE SENT FREE ON APPLICATION.



Manufacturing Chemists and Wholesale Druggists, Manufacturers of

ORANGE WINE

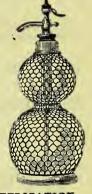
Of Finest Flavour and Quality, and specially suitable for the Preparation of Orange Quinine Wine.

PURE ORANGE WINE

(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopoia.

MOST SUITABLE BASIS FOR QUININE AND OTHER MEDICATED WINES.

A. MILLAR & CO., DUBLIN; and 47 MARK LANE, LONDON, E.C. OF OF H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.



SODA WATER MAKING



LIQUEFIED CARBONIC ACID GAS.

I am more than satisfied with the "Compact" Machine, which answers my utmost requirements. I have nearly trebled my sale this last three weeks.

I find the waters produced by this Machine far better than I have been able to obtain from any one, being much more saturated with the gas, and the Syphons emptying themselves straight off, without

From Mr. C. F. WYATT, Chemist, Rochester.

December 16, 1822.

Replying to your inquiry as to "Compaet" Soda Water Machine I can only say that I am satisfied with it and the work it does in every possible way. The aëration of the water is perfect, and my eustomers are now highly pleased with the quality of the goods.

I would also add that beyond the renewal of a few washers, no repairs of my light by a beautiful renewal of a few washers.

of any kind have been required since I had it, some fifteen months since.

THE

No. 2 "COMPACT" Machine

Producing capacity, by hand, 35 dozens per hour.

PRICE £48.

Or, if fitted for steam, 70 dozen per hour (with an extra filling machine).

NOTE—Ann kind of filling machine can be attached to the "Compact" Machines, EITHER for Suphons, Internal Stoppered, Cork, or Screw Bottles.

Iron Vessel containing an average of \ 10s. 28 lbs. by weight of Liquefied Gas each.

And has sufficient Gas to manufacture about 18 gross of highly-charged Soda Water (10-oz. Bottles), or double this quantity of splits.

These Machines occupy little space, and are ready for use immediately.! They require no fixing! Are selfcontained and produce soda water, lemonade, &c., of the highest class and greatest purity, at a minimum of cost.



THE

'LONDON-MADE'SYPHON

(Title Registered).

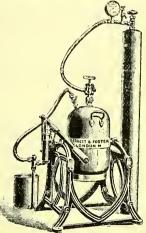
It is the Cheapest, Strongest, Handsomest, and Best in the World,

Pure Block Tin Tops.

PRICE 1/6 EACH.

Nickel-plating Tops from 3d. each. Silver-plating Tops from $4\frac{1}{2}d$. cach. Marking on Tops Free for orders of Marking on Vases Free for orders of 1,000.

CYLINDER, THE PORTABLE



Portable Cylinder with Pump fitted to Rocker.

As here shown, is charged with As here shown, is charged with plain filtered water while on the Rocker; the gas from the vessel is then slowly turned on, and the copper cylinder rocked backwards and forwards sharply so as to agitate or mix the water and gas together. When charged to the required pressure (about 110 lbs., sharm by the pressure garger.) shown by the pressure-gauge), it can be removed and attached to the Counter Fountain, or for a filling machine if desired.

Prices.

Six-gallon Tinned Copper
Cylinder 5 10 0
Cast-iron Rocker . . 1 2 6 Cast-iron Rocker . 1 2 6
Flexible Pipe, Pressuregange, Safety-valve, &
Connections . . . 3 3 0
If fitted with Pump for
pumping the water
into the cylinder (and
so avoiding waste of
gas) extra . . 5 5 0
Prices of larger Cylinders upon
application. 3 3 0 .. 5 5 0

application.

ILLUSTRATED CATALOGUE FORWARDED FREE UPON APPLICATION TO

& FOSTER, 26T Eagle Wharf Road, LONDON.



Natural Sparkling Table Water.

This Table Water is drawn from the deep springs situated near BAD HOMBURG, in Germany, the annual health resort of H.R.H. the Prince of Wales, and is the table water used by all visitors to Homburg.

It is proved by the analyses of Sir Charles Cameron and Prof. Wanklyn to be ABSOLUTELY PURE. It is aërated only with the natural gas from the Rosbach Springs.

It contains no solid ingredients or earthy salts like other natural or so-called natural, mineral waters. This means an entire absence of salty taste.

Rosbach Water enriches the flavour of good wine, whisky, brandy, champagne, or any vintage claret instead of suffocating the same, which is usually the case with other table waters on account of their salty constituencies.

Rosbach Water taken pure is a most refreshing and pleasant drink, soft and mellow, and of a beautiful bright, sparkling appearance, and exceedingly soothing to the palate.

A bottle of Rosbach Water after being opened, partly emptied, and left corked up until the next day, will be found as bright and sparkling, retaining its full flavour and taste as no other water has ever proved to be.

Rosbach Water, being alkaline, will be found invaluable in cases of Dyspepsia, Gout, and Torpid Liver.

ROSBACH WATER COMPANY,

4 SUSSEX PLACE, LONDON, E.C.

Per 100 Pints | LONDON, 36s. Delivered Free | COUNTRY, 39s.

Per 50 Quarts | LONDON, 23s. Delivered Free | COUNTRY, 25s.

Firms are invited to apply for a Sample Case for trial, which will be delivered to any address free of charge.

COMPRESSED (OR LIQUEFIED)

PORE GARBONIC AGID GAS

FOR PRODUCING

MINERAL AND AERATED BEVERAGES

OF THE HIGHEST QUALITY.

FREE FROM MINERAL ACID AND OTHER IMPURITIES.

SOME OF ITS ADVANTAGES:-

No Generator required

No Mineral Acids to use

No Whiting or its substitutes

No refuse to get rid of

No choking of sewers

No expensive machinery

No difficulty with present plants

Chemical purity and safety

Freedom from atmospheric air

Vitriol splashing avoided

More perfect aeration

Produces cold during expansion

Simple and cleanly to use

A supply always ready

Saving in Machinery

Saving in Driving Power

Saving in Wear and Tear

Saving in Labour

Saving in Time and Trouble

Saving in Materials

Saving in Cost

PRICES AND PARTICULARS ON APPLICATION.

MACHINERY, BOTTLES, BOXES, ESSENCES

AND ALL SUNDRIES FOR AERATED WATER TRADE.

DAN RYLANDS, Ld., BARNSLEY.

London Offices-62 KING WILLIAM STREET, E.C.

THE GUARANTEED PRODUCT OF PRIME OX BEEF.

WHOLESALE PRICE-12/6 & 21/6. LESS USUAL DISCOUNT.

INVALID BOVRII

SPECIALLY PREPARED FOR INVALIDS. SOLD ONLY BY CHEMISTS. RETAIL PRICE-1/3 & 2/-

PER POL .

50 times more Nourishing than Meat Extract or Beef Tea.

PEPSALIA.

The New Improved and Perfected Style. White and Odourless.

Guaranteed to keep good indefinitely in all climates.

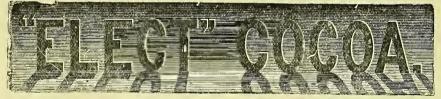
1/-	size	•••	•••		•••	•••	Per dozen,	10/-	•••	•••	•••	•••	Per gross, 105/- net.
			•••				,,		•••	•••	•••	•••	
5/-	,,		•••	•••	•••		"	50/-	•••	•••	•••	•••	,, 525/- ,,

PUVILIN

Essence		***	Per dozen	1, 1 5/-,	less	10 I	per cent.	Liniment	1/9		 Per dozen,	20/-,	less	10 p	er cent
777		•••					"	Jujubes	1/1	•••	 ,,	10/6	,,	5	"
Extract Ointment		•••	**	9/- 11/-		10	"	••	2/3	•••	 ,,	20/-	,,	5	,,
Omemen		•••	"	27/-		10	"	Dry Inhal				14/-	,,	10	,,

G. & G. STERN, 62 Gray's Inn Road, LONDON, W.C.

The "MEDICAL PRESS AND CIRCULAR":—
"Oertainly this preparation is of delicate flavour... It is
perfectly soluble... the small quantity required for the
immediate production of a cup of excellent cocoa will ensure for the
'Elect Extract' a favourable reception at the hands of person of
weak digestion, and all who prefer this
wholesome beverage to tea and conce."



The "BRITISH MEDICAL JOURNAL" says:-

"Rowntree's Cooos Extract is one of the best. Its flavour and aroma are good. Oceaa thus pre-pared is one of the mest digestible articles of food."

YORK, ENGLAND.



Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilfa and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. Robinson, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat.

Extract of Malt, and sound Port Wine.

WILLIAM ELBOBNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Vistoria University.)

December 15, 1838.

Specially prepared for Quinine Wine, does not deposit, will keep good containing 9, 18, 30, 60, or 120 aate, and well adapted for Export Trade.

This Wine is well adapted for Pharmaceutical Preparations, and is the standard for the B.P. Price, in 6-Gallon Casks, 5/6 per gallon; in 2-Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed in returned. Cash or satisfactory reference to accompany orders. B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester. 80



ESTABLISHED 1859.

CHIEF OFFICE: 42 CANNON STREET, LONDON, E.O.

BRANCH OFFICES: FINK'S BUILDINGS, MELBOURNE, VIO., AND
EMPIRE CHAMBERS, YORK STREET, SYDNEY, N.S.W.

▲ weekly journal, supplied from the chief office in London to subscribers and persons connected with the trade only. Subscription, 10s. per year, payable in advance, including a copy of the DIARY next published, and postage to any country in the world. Single copies, 4d. each. Cheques and Postal Orders should be made payable to "EDWARD HALSE," and crossed "MARTIN'S BANK (LIMITED)."

AS AN OFFICIAL JOURNAL

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—Pharmaceutical Society of Irrland, South African Pharmaceutical Association, Midland Pharmaceutical Association of New Zealand, Otago Pharmaceutical Association, Pharmaceutical Society of Queensland, Pharmaceutical Society of South Australia, Pharmaceutical Society of Mestern Australia, and Tasmanian Pharmaceutical Society.

CONTENTS: Vol. XLII. No. 13.

PAGE	PAGE
Bankruptcy Reports 457	Mr. Braxton Hicks 456
Business Changes 445	New Companies 458
Correspondence 464	Next Week 466
Deed of Arrangement 458	Notes of Novelties 455
Druggists' Advertising 447	Personalities 446
Editorial Comments:—	Pictet's Laboratory 460
The Opium Boom 450	Reviews 449
Medical Council Work 451	Scotch News 437
Modern Research 451	The Winter Session :—
Notes 452	Chemical Society
English News 436	Chemists' Assistants' Associa-
Foreign and Colonial News 438	tion
French Pharmaceutical News 438	Edinburgh, Brighton, and
Gazette 458	Manchester Associations 441
Irish News 437	Tincture of Lobelia, by E. H.
Legal Reports 441	Farr and R. Wright 454
Marriage 458	Trade Notes 446
Medical Gleanings 459	Trade Report 462

COLONIAL TRADE.

WE have recently revised our foreign registers from special advices, and we intend to send a copy of the issue of April 29 to every non-subscribing chemist and dealer in druggists' goods whose name is on our lists (and we believe our manuscript directory is as nearly complete as possible), in South Africa, India. China, Japan, and the Straits Settlements, and throughout the West Indies.

We think wholesale and manufacturing firms willing to cultivate business in the countries named will do well to take advantage of the valuable opportunity thus offered.

The special circulation named will be, of course, in addition to our regular large subscription issue in the United Kingdom and abroad. For tariff, &c., apply to the publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

TEST FOR TINCTURE OF STROPHANTHUS.—Take 3 drops of the tincture, and mix with $\frac{1}{2}$ drop of ferric-chloride solution (10-per-cent.) and 3 drops of sulphuric acid. A brown precipitate is formed, which is distinctly green after one hour, and should retain the colour for fully three hours. This is Hartwich's metho 1, and it depends upon the presence of strophanthin.

Summary.

FURTHER proceedings in Mr. Twinberrow's bankruptcy are reported in this issue.

WE give some hints, partly American, on the best methods of newspaper advertising for retail druggists.

Two hotel-keepers have been fined at the West London Police Court for selling plain carbonated water for "sodawater."

WE comment upon the departure from the patent specification of Kay's Essence of Linseed by the manufacturers thereof.

THE Blackburn chemist's message-boy has been sentenced to fifteen years' penal servitude for the manslaughter of Mr. Neilson, his employer.

AMONGST our Foreign and Colonial items are further particulars regarding the cultivation of perfume-plants in Victoria—now succeeding fairly well.

THE patient of a Cardiff doctor has been awarded damages in consequence of temporary injury caused by a mixture containing an excessive quantity of free ammonia.

THE history of the introduction of strophanthus into the rapeutics is detailed in the article on "Modern Research," this being based on Professor T. R. Fruser's monograph on the subject.

OPIUM and morphia have risen considerably in price, and have created excitement in the drug market. The present position and prospects of the articles are specially commented upon editorially.

THE series of papers by Messrs. Farr and Wright on the standardising and the best means of preparing pharmacopoeial tinetures containing well-defined active principles is concluded in this issue, tineture of lobelia being dealt with.

THE "Fruit-salt" title has again come before the Court in the form of an application for an interim injunction made by Mr. Eno against Messrs. Dunn & Co., who have used the title in connection with some tablets. The injunction was granted.

THE Judge of the Sheffield County Court thinks he has no jurisdiction in the case of the dentist's apprentice whoseeks to have his indentures cancelled on the ground that he is not receiving proper instruction, and refuses in the meantime to give a decision.

CONDENSED skimmed milk has been sold in Kensington labelled as "Skimmed Condensed Milk." but the retailers have been fined under the Food and Drugs Act. It was deficient in fat to the extent of 90 per cent., and the analyst said that only 55 per cent. of fat can be skimmed off milk.

THE Chemical Society's anniversary meeting on Monday was a dull affair. Professor Crum Brown (retiring president) delivered a short address on the phlogistic and antiphlogistic theories, defending Lavoisier. The Society's position financially is sound. New office-learers were elected.

WE continue our Editorial comments on the present condition of the medical profession, which now numbers more than 30,000 members in the United Kingdom. To this we add some particulars of the General Medical Council's finances, and make a suggestion regarding the revision of the British Pharmacopoeia.

A CONFECTIONER has been proceeded against under the Food and Drugs Act in the North London Police Court for selling liquorice-juice which was not pure, but the defence succeeded in proving that there is a "commercial liquorice" and one used as a drug, and that the former was supplied in good faith. The summons was dismissed with costs.

WE give a few notes of the career of Mr. Braxt n Hicks, the coroner, detailing the genesis of the enforced application of those principles of the Pharmacy Act which so long lay dormant in the Pharma centical Society's hands, and which genesis reached full development in the Wheeldon and Piper cases: With these notes we print a portrait of Mr. Braxton Hicks.

English News.

The Editor is obliged to correspondents who send local newspapers containing terms of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Clerkenwell Vestry and Disinfectants.

At the Clerkenwell Vestry meeting on Thursday, March 23, the business was prolonged until near midnight in discussing the relative merits of disinfectants. The Clerk (Mr. R. E. Paget) read three tenders he had received, and Mr. Crowle-Smith asked upon what basis the tenders were accepted.

The Clerk: The contractor signs a document to the effect that, in the event of the goods not being up to sample he pays the cost of analysis and any difference in price that the Vestry may have to pay in getting disinfectants elsewhere. If the goods are not up to sample, the Vestry have the power of purchasing elsewhere, and charging the difference to the contractor.

Mr. Dixie: We will first consider Mr. MeDougall's tender. (Laughter.)

The Clerk: You will have to wait until next year. for he has not tendered this time.

The first tender opened was that of Messrs. Adcock, Easton & Co., who offered 95-per-cent. clear earbolic acid fluid, free from tar oils and sulphuretted hydrogen, at 2s. per gallon; 70-per-cent. earbolic acid dissolved in caustic soda, and free from tar oils and sulphuretted hydrogen, 1s. 8d. per gallon; 15-per-cent. carbolic disinfecting-powder, free from tar oils and sulphuretted hydrogen, 5s. per cwt. Messrs. R. Hoff & Co. tendered only for the disinfecting-powder, which they quoted at 15s. per cwt.

Mr. Millward: Is that per ton? (Laughter.)
Mr. Scheib: Oh, they're Hoff! (Laughter.)

The Clerk: They say it is three times lighter, bulk for bulk, than any other powder. Cannon & Co. (Limited) wrote:—"Strike out your requirements, and put ours at 1s. 6d. per gallon." Messrs. Adams, Webster & Co. offcred 95-per-cent. carbolic-acid fluid at 2s. 4d. per gallon; 70-per-cent. carbolic acid at 1s. 7d. per gallon; and 15-per-cent. carbolic disinfecting-powder at 5s.

Mr. Dixie: Before you put the names to the vote, let me ask if there were any complaints last year, and whether any of the stuff was returned?

The Clerk: My impression is that both Adcock's and Adams's have had goods returned.

Mr. Davies: But they replaced the returns by better

The Clerk: The acids are constantly analysed.

Mr. Wildbore moved that the tender of Messrs. Adcock, Easton & Co. be accepted.

Mr. Dixie: I should certainly have liked to sec good firms

like McDougall or Calverts tendering.

Dr. Jones: Before this matter is voted upon, I should like to see the question deferred, and new advertisements issued, because I cannot conscientiously vote for either of the tenders. It is impossible to supply good acids at the price.

Mr. Dixie seconded the proposition.

Mr. Crowle-Smith: It is unfair to get people's prices, read them publicly, and then re-advertise.

Mr. Dixie: It is not unfair. If a practical man like Dr. Jones tells us good articles cannot be supplied at the price,

we are justified in advertising again.

Mr. Wildbore pointed out the conditions of the contract, and said that with these, vigilance and on the part of the Vestry and the analyst, they could not go far wrong. Discussion followed, in which several members supported Dr. Jones's contention; and Mr. Putterill (chairman of the Sanitary Committee), commenting upon the past supplies, said that samples of the carbolic acid and powder had been taken from every parcel as it arrived, and the analyst had tested every sample. No single portion had been delivered without being tested. Mr. Colwell knew very well what is sent in and what it ought to be. If the contractor did not supply proper goods, they were quite at liberty to send them back again. They should give the tender to the lowest-priced man, and leave the risks to himself. (Hear, hear.)

Mr. Dixie, as vice-chairman of the Sanitary Committee, said he could not endorse the statement that every parcel of cisinfectants was sampled and analysed. He knew that was not done. A proper material could not be supplied at the price.

Ultimately a vote was taken, and the contract was given to Messrs. Adooek, Easton & Co.

The Blackburn Tragedy.

At the Liverpool Assizes, on Saturday, Edward John Williams, 15, described as a bootmaker, was brought up for sentence for the manslaughter of his employer, Walter Neilson, chemist, Blackburn, on February 22. There had been some delay in passing sentence, owing to the finding of a second key for Mr. Neilson's shop, but this matter having been satisfactory cleared up to show that it did not affect prisoner's position, Mr. Justiee Wills passed a sentence of fifteen years' penal servitude.

Tabloids for the Premier.

During Mr. Gladstone's recent illness he was the recipient of a useful little present—viz., a ease of "tabloids"—presented to him by Messrs. Burroughs. Wellcome & Co.'s employés at Dartford, who, by subscription, purchased the case from the firm. We understand that Sir Andrew Clark, M.D., was eonsulted in regard to the contents. The following letter accompanied the present:—

To the Right Honourable W. E. Gladstone, M.P.

The employes of Messrs. Burroughs, Wellcome & Co., at Snow Hill Buildings, London, E.C., and at the Phenix Mills, Dartford, Kent, beg your acceptance of the accompanying small case containing drugs in the compressed form. The medicines are those that are regularly prescribed by the medical profession, and it is thought that you will find them of great service, under the guidance of your physician, when travelling and at other times. The "tabloids," as you will observe, are not intended to supplant the physician, the idea being solely to prepare drugs usually supplied in a most eligible form for administration.

At the same time those engaged at the offices and laboratories of Messrs. Burroughs, Wellcome & Co, send you their best wishes for the prolongation of your very useful life, which they trust will be still further devoted to the public welfare.

March 1, 1893.

The following is the Premier's reply:-

10 Downing Street, Whitehall,

Gentlemen.—I beg to return my grateful thanks to the workmen in your employ, who have had the goodness to present me with a case of compressed drugs, and to express my sense of the kindness of the letter which accompanied their elegant and useful gift.

I am, Gentlemen,

Your faithful servant,

Messes, Burroughs, Wellcome & Co. W. E. GLADSTONE.

To that we may add that the Sultan of Morocco recently took a fancy to his Premier's case of "tabloids," and Cadi Maclean had to order another for himself a few weeks ago.

Acetic Acid as a Poison.

Susan Goode (43), a widow, residing at South Streatham, bought a bottle of acetie acid on Monday, drank some of it, and died on Tuesday.

Drug-contracts.

The Guardians of the Eeclesall Union, Sheffield, have given their contract for drugs to Mr. Perey Carr, wholesale druggist, Ecclesall 'Road, and to Mr. John Turner. chemist, South Street, Sheffield.

The Lewisham Union Board of Guardians have accepted the tender of Messrs. Hill & Son, Sonthwark, for the supply of drugs to the workhouse and infirmary, and that of Messrs. S. Maw, Son & Thompson, 7 Aldersgate Street, for the supply of surgical appliances.

The contract for the supply of drugs, &c., to the Wolverhampton Board of Guardians has been secured by Wyleys (Limited), the amount of the tender being 331. 18s. 7d.

Mr. Thompson, chemist, King Street, Dover, has seeured the contract for the supply of chemicals to the Dover Board of Guardians.

Mr. A. Dunston, chemist, Farnham, has had his tender accepted for the supply of chemicals and drugs to the Farnham Board of Guardians. The tender included the follow-

ing prices:—Cod-liver oil, 4s. per gallon; ditto retail, 7d. per lb.; crushed linsced, 17s. 6d. per cwt.; quinine, 16s. 6d. per lb.

The Gravesend Guardians have accepted the tender of Mr. A. King, chemist and druggist, of Gravesend, for the supply of drugs to the Union Workhouse for six months. The Town Council of Gravesend have accepted the tender of Mr. Morris, chemist and druggist, of Gravesend, for the supply of disinfectants for the ensuing twelve months.

The Wandsworth and Clapham Guardians have accepted the tender of Messrs. Corbyn, Stacey & Co. for the supply of drugs, that of Messrs. Calvert was accepted for the supply of carbolic soap, and that of Messrs. Pryke & Palmer for the supply of oils, white-lead, and other goods.

The Doctor's Visitor.

At the North London Police Court on Tuesday, before Mr. Lane, Q.C., George Walker, 30, described as an unqualified medical assistant, was charged with attempting to steal from a ehest of drawers in the consulting-room of Dr. Thos. Cromwell Winn, of King Edward Road, Hackney. The prosecutor said that the prisoner called at his house, and got admitted to the consulting-room on the pretext that he wished to see him professionally. When he (witness) went to the room he saw the prisoner in the act of pulling open a drawer, in which there were valuable instruments. He (witness) used a sharp expression. Mr. Lane: A stretch of elocution would be pardonable under the circumstances. (Laughter.) The Prosecutor: And when I asked him what he wanted he said he had come to beg. Another doctor now got into the box, and said that the prisoner had been in his employ as assistant, but had taken to drink, and finally absconded with the contents of the till. Mr. Lane: How do you know that? The Witness: Because the money was gone, and he did not return. Mr. Lane: At this stage of the case this is a very improper interposition. But I suppose you are not well acquainted with the rules of evidence. If you wish to charge him with the theft you may do so, but must not give evidence of a second case in the middle of the first. I see no evidence of attempted theft here, and the prisoner is discharged.

The Dispute in the Glass-bottle Trade.

The dispute in the glass-bottle trade of South Yorkshire still drags on, several recent attempts to settle it having failed completely. The most recent effort was made last week, when the Bishop of Wakefield offered to act as mediator. The masters considered the offer, and agreed to abide by the result of an appeal to a board of arbitration. The men, however, rejected the proposal by an overwhelming majority, on the ground that gentlemen not engaged in the trade and unfamiliar with its peculiarities would be unable to arrive at a conclusion likely to give satisfaction to both parties. In view of the approach of spring, mineral-water manufacturers regard the prospect with some degree of apprehension. Further large orders for small bottles have been placed with continental makers.

Winding-up Companies and Poor-rates.

At the Widnes Petty Sessions on March 23, John W. Davison, accountant, Liverpool, and liquidator of the Lancashire Alkali Company, Widnes, was sued by John Goff, Assistant Overseer, to recover 52l. 16s. for poor-rates due. Mr. Goff proved by his books that the amount was due, and had been applied for in the usual way. He believed that business had been carried on at the company's premises during the year. Dr. Sparrow, for the defendant, quoted the 163rd section of the Companies Act, which declared that any distress warrant issued whilst a company was being wound up was dull and void. Finally, the Magistrates granted a distress warrant, but Mr. Goff was informed that he would have to take the onus on his own shoulders.

A Doctor's Dispensing.

On Tuesday, in the Nisi Prius Court of the Glamorganshire Assizes, at Cardiff, Mr. Wm. Williams, builder and contractor, Swansea, sued Dr. Meaden, Bristol, and Dr. Soden, Swansea, for 500*l*. damages for injuries sustained through alleged neglect by defendant Meaden in treating him as a patient.

The case for the plaintiff was that, being ill, he had sent

to Dr. Soden, and that Dr. Meaden, who was acting as locumteness for Dr. Soden, attended him. It was alleged that a bottle of medicine was sent with instructions on the label that he was to take two tablespoonfuls. He took a dose "neat," and the effect was, he said, that it knocked him on his back on the bed, burned his throat all the way down, and he rolled about in agony with internal pain, struggling to get breath. His throat and mouth swelled, and he soon became unconscious, and remained so for a long time. He still suffered from the effects of the medicine. He was not now nearly so strong as he had been before the accident, and his digestion had been seriously impaired. He had been ill in bed five weeks over it. In reply to his Lordship, witness stated that the pleurisy from which he was suffering was cured.

This evidence was corroborated by several witnesses, and included a doctor who was called in.

Mr. Wm. Morgan, public analyst for the county of Glamorgan, the borough of Swansea, &c., said he analysed some of the medicine, and found it to contain 2.84 per cent. of ammonia, which was very much more than should be taken as a medicine. The percentage at which it was innocuous was 4 per cent.

Dr. Meaden said the mixture contained 20 drops of diluted ammonia in each dose. He wrote on the label that it was to be taken in water. It was admitted that he had taken the bottle away, and it was now lost. It was also proved that the plaintiff had been in money difficulties, and had tried to get 150% to settle this matter.

The Judge commented on the loss of the bottle, and also said he should tell the jury that on the question of permanent injury there was no case whatever.

In the result, the jury found a verdict for the plaintiff, with damages 27l.

Frish Rews.

Tenders Wanted.

The Boards of Guardians of the following Poor-law Unions invite tenders for the yearly supply of drugs and medical requisites, and will consider same on the appended dates:—South Dublin Union, April 5; Belmullet, April 6; Loughrea, April 8.

Scotch Rews.

Carbolic Acid for Whisky.

William Urquhart McLeod, grocer, Cromarty, died on Wednesday, March 22. He was working in his garden in the afternoon, went into the house tired, drank a quantity of carbolic acid in mistake for spirits, and died in half-an-hour.

Glasgow Parish Medicines.

At the monthly meeting of the Glasgow Barony Parochial Board, held on Tucsday, it was reported that the medical prescriptions dispensed to the outdoor poor in the parish last month numbered 1,055, at a cost of 76*l*. 12*s*. 5*d*.

A Glasgow Professor to Lecture on Medicine in Chicago.

Professor Charteris, the occupant of the Materia Medica Chair in Glasgow University, has accepted an invitation from the Post-Graduate Medical School and Hospital of Chicago to deliver a lecture on a subject connected with general medicine in their Institute next September.

A DIGESTIVE FERMENT has been isolated from the milky juice of the Brazilian white fig-tree (*Urostigma Dolarium*) by Peckolt. The juice has an almond-like flavour, and readily dissolves fibrin and coagulated egg-albumen.

French Pharmaceutical Rews.

(From our Paris Correspondent.)

ELECTROTHERAPY AND THERAPEUTICS.—The General Council of Faculties and the School of Pharmacy have decided to authorise a series of free fectures on electrotherapy and therapeuties at the Paris School of Medicine during the second half of the present year. Drs. Foveau and Morage are respectively charged with these classes.

A Fire broke out on Tuesday morning last in the cellars of the Paris Academy of Medicine. The flames started in a pile of firewood which served to supply the heating-stoves of a portion of the Hôpital de la Charité, this latter building being connected with the Academy. The firemen obtained control of the conflagration after an hour's work.

ALCOHOLIC INTOXICATION.—As a result of researches made during the past twenty years, Dr. Lardier, of Rambervilliers, Vosges, has addressed a paper to the Paris Academy of Medicine on "Alcoholic Intoxication and its Prevention." He finds that since 1870 the amount of alcohol consumed per inhabitant in France has risen from 1 litre 46 c.c. to 4 litres 40 c.c. Dr. Lardier insists on all possible means being used to prevent this tendency to intoxication. He finishes by stating that alcoholism makes the least number of victims amongst Jews.

THE NEW MEDICAMENT COMMISSION announce that a definite list of the remedies to be added to the French Codex will shortly be issued. The provisional list has been found to be much too complete, and contains the names of a certain number of medicaments which have already fallen into disuse. Amongst suggested improvements M. Postes proposes that official processes of analysis should be fixed by the Codex, as at present different results are frequently obtained. M. Patein is of opinion that it would be advisable to enter officially in the French Pharmacopocia those American fluid extracts which are already in practical use.

The Parts Hospitals.—The Superior Council of Public Assistance has decided to divide the free medical service of Paris into sections, each district to have a central hospital with a certain number of dispensaries connected with it. The house surgeons of the hospitals are to be deprived of the right of granting admission and, except in urgent cases, the right to enter a hospital will be decided at the residence of patient. The central office now in existence is to be suppressed, and the doctors connected with it will be placed at the head of the dispensaries. Amongst other reforms the medical men employed by the city are no longer to supply medicaments and the municipality of Paris is to have pharmacies of its own, the organisation of which will be known shortly.

A SMALL REINACH.—For some time past a small, thin individual, styling himself arehiteet of the Prefecture of Police, has been calling upon manufacturers who have made the necessary application to the authorities for commencing business or extending works already existing. His attention has been devoted particularly to manufacturing chemists. He proceeds by examining the works, and then, pretending the authori-ation remains with him, declares that he will only grant it in exchange for a liberal bribe. The reason given is that his services are insufficiently paid for by the Prefecture. The latter has put another complexion on the case by issuing a circular to the effect that this individual is a swinder, and that, if found, he will be prosecuted as such. Fortunately the Panama seandals have had the effect of putting manufacturers on their guard, consequently the dupes in this case are but few.

Foreign und Colonial News.

PHYSICIANS AND PHARMACISTS IN THE COUTES.—Ten medical men and three pharmacists have been returned to the Spanish Chamber of Deputies which has just been along with the French, is valuable in soup-making. About

elected. One of the pharmacists, Don Fernando Merino, will, it is thought. be appointed Secretary of the Chamber. The other chemists are D. Ricardo de la Puerta y Escolar, son of a professor of pharmacy at Madrid University, and D. Manuel Camo, who has a chemist's shop in Huesca. All three are advanced politicians.

UNITED STATES PHARMACOPCIA.—Professor Remington has stated to an *Era* correspondent that the new Pharmacopcia will be eonsiderably more bulky than that of 1880. The most important change is the adoption without limitation of the metric system of weights and measures. This, it is expected, will meet with a storm of criticism from the oldest members of the pharmaceutical profession. Many additions will be made to the book, including preparations of galenical pharmacy and new drugs and chemicals. Patented chemicals will not be recognised officially.

NEW YORK DRUGGISTS AND THE PATENT-MEDICINE TRADE.—At the monthly meeting of the Drug-trade Section of the New York Board of Trade, on March 18, Mr. Theo. Weieker brought forward his resolution against the traffic in patent medicines, of which we gave particulars in our last issue. The motion was seconded by Mr. Schieffelin, and after a lively discussion was lost. It was finally decided to have a committee of three to confer with the Academy of Medicine and kindred associations relative to proper legislation upon the subject of proprietary medicines. The committee is to be appointed by the Chairman.

THE OPIUM-TRADE IN INDIA.—From official figures just published, it appears that the total quantity of Bengal Excise opium manufactured at Patna and Ghazipur, including Malwa opium, purehased to supplement the supply available in the Behar and Benares agencies, was—in 1881–82, 284,799 seers; in 1884–85, 386,762 seers; in 1888–89, 194,336 seers; and in 1890–91, 423.612. In the last-mentioned year the manufacture was increased in order to replenish the reserve. The quantity of Exeise opium sup plied to native States and provinces averaged about 260,000 seers in each year from 1881 to 1890. In 1890-91 the quantity was 315,320 seers. The total quantity in stock at the end of each year averaged between 200.000 and 300,000 seers, until 1889-90. when it fell to 177.780. In 1890-91 it was raised to 317,140. The quantity of Malwa opium purchased for British provinces has decreased from 37,509 seers in 1881-82 to 9.619 seers in 1890-91, and the quantity purchased for British provinces and native States together from 55,579 to 21,990 seers. The quantity of Malwa opium in stock at the close of each year in British provinces has also largely decreased.

FLOWER-FARMING IN VICTORIA.—In a recent issue of an Australian journal some further particulars are given of the Vietorian Government flower farm at Dunolly, which is under the management of a native of Grasse, a Mr. Mellon, who has long been resident in Australia. A few years ago Mr. Mellon was asked by the Vietorian Minister of Agriculture to report upon the flower-farming industry in the South of France, with a view to introducing it in Australia, and afterwards, upon receiving Mr. Mellon's report, a site for an experimental flower-farm was selected near Dunolly from a reserve of about 1,000 acres, and placed under Mr. Mellon's management. Of this area 40 acres have been feneed off for the growth of the flowers, and about half is stocked with various kinds of plants and shrubs for perfumery purposes. The remaining portion is cleared, fenced, and nearly ready for planting next autumn. Although some portions of the eultivated part are not in such first rate order as might be expected on a Government establishment, great eredit is due to the director, who during his period of two seasons has done remarkably good work. The soil, a sandy loam, seems very suitable for growing numerous plants for perfumery purposes. Close to the entrance of the farm are planted the Seville orange trees, which are very floriferous, and considered the best of all for perfumery. Two kinds of geraniums are grown, the common geranium of Grasse (G. quereifolium), and a dwarf species indigenous to the neighbour-hood of Tunis, North Africa. Some three acres of the best kind of lavender (Lavandula vera). well-established plants, are thriving. There are also in small numbers plants of the French lavender (L. dentata), and another species which,

an acre of the common thyme (Thymus officinalis) and the same area of the lemon-scented thyme is doing well. Several long rows of the wild thyme of the French Alps seem as much at home as in their native habitat. About six acres of the real perpermint (Mentha Piperita), as well as a patch of the common spearmint, beds of the English pennyroyal (M. Pulegium) and of rosemary are all doing well. Some two acres of the rose (Rosa centifolia) so extensively cultivated in the South of France, and considered the best of all for commercial purposes, appear to be doing fairly well, but probably would succeed better in a stiffer soil. These plants have been propagated from a dozen plants imported from France. Plantations of Aloysia citriodora, the lemon-scented verbena, jasmine, wild mint for soap-manufacturing purposes, orris (Iris florentina), tansy, balm, wormwood, anise. cassia (Acacia Farnesiana). jonquils, hyacinths, violets, and a few other sweet-smelling flowering-plants make up Mr. Mellon's eollection. Unfortunately, the efforts made by Mr. Mellon to distil the sweet Australian plant Boronia megastigma have failed, which is the more regretted as the plant cannot be grown successfully in Europe, and is confined to portions only of Australia.

The Minter Session.

CHEMICAL SOCIETY.

THE anniversary meeting of the Society was held on Monday evening, Professor Crum Brown, the retiring President, in the chair. There was a fair attendance. The proceedings were a trifle dull until, strange to say, votes of thanks were reached, and then several members managed to get in bits of humour, which the audience eaught as if they were scintillations from the brightest wits of the century.

THE PRESIDENTIAL ADDRESS.

With little preface, Professor CRUM BROWN went straight to business by speaking of the general work of the year. The alterations on the lecture-theatre had been paid for without drawing from the investments, although they absorbed a sum of 1,402l., which was not far above the rough estimate. The year began with a membership of 1,825; in the course of the year 128 persons were elected fellows, the names of 20 were removed on account of arrears, 18 fellows withdrew, and 20 died, thus leaving the membership at 1,895. After naming the fellows who had died, the President entered upon the scientific topic, which custom requires some reference to in these annual addresses. Last year he had spoken about two new theories; this year, he said, he would speak about an old one, and this turned out to be the phlogiston theory, eoupled with an exposition of Lavoisier's work, and an able defence of the great French ehemist. It would seem ridiculous, said Professor Brown, for anyone present to assume that in the familiar methods of preparing hydrogen by acting upon zinc or other metal with an aeid, such as hydrochloric acid, the hydrogen eame from the metal. but that was the view maintained 100 years ago by an exceedingly accurate observer (Cavendish), and there were many who agreed with him. The notion was the natural outcome of the phlogiston theory which had dominated chemical science so long, and which was not finally disposed of until Lavoisier came upon the scene, and with masterly argument generalised the work of his contemporaries into a working hypothesis of striking freshness. But there was the fact to be reekoned with that Cavendish—the man whose classic researches on the constitution of water and of nitrie acid would never be forgotten-tenaciously held on to the old theory, and Professor Crum Brown gave some examples of the reasoning about phlogiston which troubled men's minds about a century ago. Whatever it might be then, whether a something plus hydrogen, or that something minus oxygen, in modern parlance phlogiston is potential energy, and this is the fact which was grasped by Lavoisier. And what would chemistry have been without him? Professor Brown proceeded to sketch the possibilities, first showing how Black in this country disarmed the opposition to the antiphlogistic theory—a work for which his researches on heat and fixed air eminently fitted him, and after an imaginary colloquial passage of arms between the phlogistic chemist and the antiphlogistic in regard to what happens during combustion. he proceeded to show what elemical nomenclature would have been had Lavoisier's reforms not been adopted. Every element would have been represented by a heavy Greek letter, and we should have had hydrogen or the elements of water in almost everything. Formulæ would have been fearful things: to give but one example, and that a simple one, \$H, would stand for our H2S, and the old nomenclature would have been quite unequal to the developments of the science. Still, Professor Brown had some sympathy with the old order of chemists. He believed that they were as earnest seekers after truth as their opponents, and though opposition to new theories might have been unduly prolonged, he thought that in elemistry it was not always a waste of time not to take the shortest cut. And when an old theory is disproved it should not be kieked contemptuously aside. but hung reverently away. (Applause.)

Professor H. E. ARMSTRONG, in moving a vote of thanks to the President for his address and for his services to the Society during the past two years, said that it was the first time in the history of the Society that they had a President from beyond the Border. Apart from the benefit that this had been to the Society by bringing them in contact with a chemist of such philosophic mind as Professor Crum Brown, it had proved that the Society was not a mere metropolitan body, but that it enlisted all British workers and extended its influence even beyond these islands. (Applause.) He spoke of the time which Professor Crum Brown had given to the duties of the chair, his long journeys from Edinburgh, the frequent severance from his academic work, and concluded by referring to the thesis which Crum Brown as a young medical student had presented in 1861 for his M.D. degree. That thesis he (Professor Armstrong) had recently the pleasure of reading, and it showed the philosophic spirit that had since dominated all his chemical work.

Dr. J. H. GLADSTONE seconded the motion, which was

carried with acelamation.

Professor CRUM BROWN, in replying, mentioned that he could only have performed the duties of the office by the courtesy of his University authorities in granting him leave; and it was in his capacity as President of the Chemical Society that he owed honours which had recently been bestowed upon him.

THE FINANCIAL STATEMENT.

In the absence of Professor T. E. Thorpe (treasurer), Mr. HOLLAND CROMPTON, one of the auditors, submitted the financial statement. This showed the income from subscriptions to be 3.771*l*. 11s. 4d.; the sale of Journal, 424. 15s. 3d., and other items brought up the amount to 4,640l. There was a balance of 2,159l. 9s. 10d. from the previous year. The expenditure was distributed over the following departments:—Editing and printing the Journal, 2,745/. 7s. 4d.; authors' copies and Proceedings, 277/ 15s. 7d.; structural alterations and electric light, 1,402l. 15s. 4d.; house expenses, 186l. 8s. 11d.; collector's commission, 188l. 10s; and sundry items for printing, stationery, repairs, addresses, &c., 486l. 3s. 10d.; leaving a balance of 1,5121. 8s. 10d. The Society's investments are: -3-per-eent. Consols, 4.0001.; Metropolitan Board of Works 31-per-cent. stock, 6,730%; and London and North-Western Railway debenture stock, 788%. The Research Fund consists of Metropolitan Board of Works 3½-per-cent. stock, 4,400%, and North British Railway 4-per-cent. stock, 1.000*l.*, which yielded dividends of 189*l*. 3*s*., to which was added a balance of 661. 5s. 4d. from the previous year. The following grants were made from the fund :-

, , , , , , , , , , , , , , , , , , ,					£	8.	d.	
, , , , , , , , , , , , , , , , , , ,	June 23, 1892.	Grant to	Dr. A. Hutchinson		 20	0	0	
, , , , Messrs. Linder & Picton	21	"	Professor W. H Perk	in	 50	0	0	
Jan. 30, 1893. , Dr. F. E. Matthews		11	Messrs. Linder & Pic	ton	 5	0	0	
Jan. 30, 1893. , Dr. H. G. Colman			Dr. F. E. Matthews		 10	0	0	
Jan. 30, 1893. , Dr. W. F. Layeoek . 5 0 0 , Dr. Ruhemann . 20 0 0 , Dr. Collie . 20 0 0 , Professor Dunstan . 50 0 Wr. T. H. Easterfield . 10 0 0			Dr. H. G. Colman		 10	0	0	
, , , Dr. Ruhemann 20 0 0 0		.,	Dr. W. F. Laycock		 5	0	0	
, , , Dr. Collie	,	.,	Dr. Ruhemann		 20	0	0	
, Professor Dunstan 50 0 0			Dr. Collie		 20	0	0	
Mr T H Easterfield 10 0 0		**	Professor Dunstan		 50	0	0	
"	"	,,	Mr. T. H. Easterfield		 10	0	0	

Thus leaving 55l. 8s. 4d. to carry forward. Mr. Crompton added a few compliments on the manner in which the books are kept by Professor Thorpe and his assistant, Mr. Tutton. Professor Thomson contrasted the figures with those of the previous year.

On the motion of Dr. RUSSELL the report was adopted,

and the auditors were thanked for their labours.

Mr. JOHN A. R. NEWLANDS followed with a vote of thanks to the officers of the Society, and in a most amusing speech complimented the Council on the effectiveness of the alterations. He concluded bis remarks by saying that perhaps someone less diffident than himself would second the motion, and when Mr. CASSAL rose to do so there were roars of laughter, continued for some minutes. Mr. Cassal's words were all honey: he had no gricvance to air, but, lest an annual meeting should pass without some eriticism, he suggested that the list of members required attention. Some names appeared in the list in not at all a respectful manner. Their gifted President appeared there as "Brown, A. Crum -a crumb it seemed to the audience, and the President led off the laugh. The Honorary Secretary (Professor Thomson) had a "p" thrown into his name, and so on. He really thought someone should look after the list.

Professor THOMSON having replied, Dr. JOHN A. VOELCKER moved a vote of thanks to the editors and librarian.

Mr. SPILLER, in seconding this, brought out some curiosities from the list of fellows. Sir F. Abel appears as a C.B., although he is a knight. Lord Playfair reads in the list as if he were "play fair, lord!" Some who are C.B.'s have not that honour in the list. Many are M.P.'s in it who in actuality are not, and others are who are not so named in the list—Sir H. E. Roscoe and Mr. H. C. Stephen, for example. Some have F.I.C. added to their names: he supposed that had been done by special request. (Laughter.) And so the eriticism went on by quip and crank. Mr. C. E. GROVES, the editor, in replying, disclaimed having anything to do with the list; he did not even know who edited it.

Then came the

ELECTION OF OFFICE-BEARERS.

This is a very formal business. Each person goes up to the table, gets the Council's printed lists from the scrutineer, places them in a basket, gives his name, and goes back to his seat again to talk with his neighbour. The result of the election was as follows:-

President.—Armstrong, H. E., Ph.D., F.R.S.

Vice-Presidents (who have filled the office of President).-Abel, Sir F. A., K.C.B., D.C.L., F.R.S.; Brown, Dr. A. Crum, F.R.S.; Crookes, W., F.R.S.; Frankland, E., D.C.L., F.R.S.; Gilbert, J. H., Ph.D., F.R.S.; Gladstone, J. H., Ph.D., F.R.S.; Müller, H., Ph.D., F.R.S.; Odling, W., M.B., F.R.S.; Perkin, W. H., LL.D., Ph.D., F.R.S.; Playfair, Lord, Ph.D., K.C.B., F.R.S.; Roscoe, Sir H. E., LL.D., F.R.S.; Russell, W. J., Ph.D., F.R.S.; Williamson, A. W., LL.D., F.R.S.

Vice-Presidents.—Atkinson, E., Ph.D.; Harcourt, A. Vernon, F.R.S.; O'Sullivan, C., F.R.S.; Pattinson, John; Ramsay, William, F.R.S.; Tilden, William A., F.R.S.

Secretaries. - Dunstan, Wyndham, M.A.; Thomson J. Millar.

Foreign Secretary.—McIdola, Raphael, F.R.S.

Treasurer.—McIdola, Raphael, F.R.S.

Treasurer.—Thorpe, T. E., B.Sc., F.R.S.

Members of Council.—Collie, Norman. Ph.D.; Cross,
Charles F.; Dixon, Harold, F.R.S.; Dyer, Bernard, D.S.;
Fletcher, Lazarus, M.A.; Friswell, R. J.; Muir, M. M. P.;
Page, F. J. M.; Perkin, W. H., jun., F.R.S.; Shenstone, W. A.;
Voelcker, John A., Ph.D.; Wynne, W. P., D.Sc.

The names in italics are of those elected for the first time;

the others were re-elected. The meeting then unanimously adopted the following alterations in by-laws and adjourned

to April 20 :-

1.-In By-law XI., after the words "The ordinary scientific meetings of the Society shall be held twice in every month, from November to June inclusive, except in the month of January, when the Society shall meet once only," to add the words "and also at Easter, when, if the Council see fit, there shall also be only one meeting in the month."

2.—In By-law XIII, to add the following paragraph:—"At all general meetings of the Society, whether annual or extraordinary, no motion of a proposal to alter the by-laws shall be considered of which due notice has not been given at least fourteen days previously, either at an ordinary scientific meeting, or through the agency of the 'Proceedings,' or by means of a printed notice addressed to all the resident Fellows."

CHEMISTS' ASSISTANTS' ASSOCIATION.

MR. E. H. GANE, one of the School of Pharmacy staff, figured before the Association last week as the contributor of a paper on

SYNTHETIC REMEDIES.

The subject was treated on the physiological action and chemical constitution basis. The author showed how the action of the elements is modified by combination with other elements, and how even valency affects this factor. After general attention to inorganic compounds, he turned to those of an organic nature, pointing out that the fatty series provides us with anæsthetics and bypnotics. He spoke generally of some of these substances, and how they are related to each other, what their action is, &c. Derivatives of the aromatic series were next referred to, these being in most cases antipyretics or antiseptics. With them the law applies that increase in molecular weight means increased activity, and the position of substituents in the molecule has also a determining influence upon the action. As is well known, the phenols are powerfully antiseptic, but they are also toxic. Brunton and Casb therefore searched for a good phenol antiseptic without the toxic properties. This they discovered amongst the amido derivatives. Thus amido-phenol is a good antiseptic and is non-toxic.

By replacing a hydrogen atom in ordinary aniline by the acetic radicle we get acetanilide, known as antifebrin, and its methyl derivative is well known as exalgine. By exchanging the methyl group for ethoxyl we get a very valuable antipyretic—phenacetin. Its properties depend on the ethoxyl group. After referring to antipyrin, Mr. Gane pointed out the advantage which would accrue by the combination of its best properties with those of phenacetin, and that be claimed to be exhibited in phenocoll, which is phenacetin with a bydrogen atom replaced by NH2. Phenocoll is often in the market in an impure state, and should always be tested. Reuter's test for unchanged phenetidin is the most useful. It consists in gently fusing the sample with ehloral hydrate. A rose-violet colour is produced if phenetidin is present. In this fashion the author proceeded to speak of phenol, salol, and betol, and then mentioned the isomerides of antipyrin, and lastly spoke of the antisepticswhich are halogen derivatives, such as iodoform, iodol, aseptol, sozoiodol, &c. In concluding, he pointed out how important to the pharmacist are researches in this direction, and said it would have been well if the Research Laboratory had kept to work of this kind instead of attempting to determine the constitution of the alkaloids.

In opening the discussion, Mr. F. A. Rogers (President) expressed his disappointment with the paper because of its lack of matter of direct practical importance. Thereupon the discussion was diverted into speculations on the value of a thorough knowledge of organic chemistry to the pharmacist, and the only erumb with an air of freshness about it which we can pick from our reporter's notes of the discussion was Mr. SAGE's statement that he has often found commercial phenacetin to be impure—it melts at too low a temperature. There was also some sharp comment about the Pharmaceutical Research Laboratory work on the oximes, and in reference to that Mr. GANE ventured to say that if they had stuck to the work with which they began all would have been well with the Laboratory. They had departed from this; but their work he considered to be of great value, though not quite what it was intended to be.

Next week's smoking-concert (for which Mr. H. H. Robins is making arrangement) is, we hear, to be a good onc. There will be one or two new singers, and it is expected that

a popular pharmacist will preside.

MANCHESTER PHARMACEUTICAL ASSOCIATION.

THE Hon. Secretary informs us that, as a result of last week's conference, there are ten new eandidates for membership of the Manchester Pharmaceutical Association from Blackburn alone.

BRIGHTON JUNIOR PHARMACY ASSOCIATION.

This Association held a very successful conversatione at the Royal Pavilion, Brighton, last week. It was the first event

of the kind that has been promoted by the Association, and the large number of members and their friends who attended thoroughly enjoyed themselves. Subsequent to an excellent concert, the majority of the company participated in the dancing programme, the pleasant gathering being brought to a close about half-past Z in the morning. Much credit is due to the Hon. Secretary of the Association, Mr. J. P. Nosworthy, for the complete arrangements he had made to secure the enjoyment of the guests.

LIVERPOOL PHARMACEUTICAL STUDENTS' SOCIETY.

THE usual fortnightly meeting of this Society was held on March 23 at the University College. A paper was read by Mr. Frank Walker entitled "Summer Days," in which he gave a résumé of the botanical "finds" of the past two or three seasons. At the conclusion of the paper it was resolved to form a Botanical Exchange Club, in connection with the Society, to work the district during the summer months. The Council of the Society also decided to offer a prize for the best prepared and most representative herbarium of fifty species gathered within fifteen miles of Liverpool between April 1, 1893, and February 1, 1894. At the conclusion of the general business, the President (Mr. Theo. H. Wardleworth) had a pleasant duty to perform. As Mr. Harold Wyatt, jun., who had taken such an active part in the work of the Society and had filled the presidential chair, was about to leave for a lengthened stay in France, his fellowmembers decided to present him with a mark of their appreciation and esteem. The presentation took the form of a set of Ruskin's works and a work on modern French pharmacy (Crinon's). Mr. Wyatt, on accepting the books, was enthusiastically received, and said that on every occasion it had been a pleasure to serve the Society.

EDINBURGH CHEMISTS', ASSISTANTS', AND APPRENTICES' ASSOCIATION.

At the meeting held on Wednesday, March 22, Mr. W. B. COWIE read a

REPORT ON LIQUID EXTRACT OF ERGOT.

Eight commercial samples were procured. In appearance they seemed much alike, but the results show that appearance is not a safe guide. To obtain a suitable standard for comparison, three samples were prepared by the B. P. process from different ergots, and it was noted that the following were the average factors:—Specific gravity, 1.038; extractive matter, 14.85 per cent.; S.V.R. by volume, 29.76 per cent. The eight samples gave the following figures:—

,	Sample		Specific gravity	Per cent. extractive	S.V.R. by vol.	Copper
G .			1.038 1.031 1.018 1.025 1.040 1.040 1.016 1.062 1.020	14·85 15·08 11·77 12·80 14·90 15·40 8·12 17·47 11·67	29·76 32·94 32·91 33·50 24·70 25·00 16·28 12·80 29·89	Absent Present Absent Absent Present Present Present Present
A	rerage	••	1.032	13-41	25-43	

In comparison with the standard factors these results show a perceptible variation in the percentage of extractive. The alcoholic strength remains practically constant; it is however, much lower than might be expected, and a calculation shows that there is a loss of about 7 per cent. of rectified spirit. The percentage of extractive was determined by drying at a temperature of 105° C. till it ceased to lose weight. The only published statement as to the correct percentage of extractive is that given in Squire's "Companion"—viz., 11.46 per cent. at 105° C. This estimate is too low. One-half of the samples contained copper. In the case of an important preparation of this kind it would be an advantage to have in the Pharmacopœia such characters and tests as would secure the attainment of a reasonable

standard of uniformity, and say:—"A bright liquid of a rich, reddish-brown colour, having a specific gravity of 1.030 to 1.040, yielding at 105° C. 12 to 14 per cent. of extractive, readily soluble in warm water, and containing 29 to 30 per cent. by volume of rectified spirit."

Mr. ISAAC W. THOMSON next contributed a note on

DECOCTION AND ACID INFUSION OF CINCHONA.

The results reported were obtained in making some experiments to determine the extent to which the bark is exhausted in making the preparations referred to. The work (still incomplete), so far as it goes, gives somewhat striking results. The bark used contained 6·2 per cent. total alkaloids, the quinine and cinchonidine being 4·05 per cent. B.P. infusion made from this contained the equivalent of 4·94 per cent. total alkaloids (loss 1·26 per cent.), but the equivalent of 1·91 per cent. of quinine and cinchonidine only—an even greater loss. The ratio of loss was the same, but greater in the case of a two-hours' cold infusion, and still larger in the decoction. Practically these preparations represent less than half the weight of quinine and cinchonine contained in the bark.

Apart from remarks upon the papers, this was all the business.

Legal Reports.

LIQUORICE AS A DRUG AND AS A CONFECTION.

AT the North London Police Court last Friday, before Mr. Lane, a case which occupied some hours was tried, as to whether stick-liquorice, as vended by confectioners, came within the meaning of the Food and Drugs Act. The complainants were the Hackney District Board of Works, and the defendant Mrs. Lucy Simmons, confectioner, of 174 Clarence Road, Clapton. The summons stated:—"That you did unlawfully sell, to the prejudice of the purchaser, an article of food—to wit, 2 oz. of liquorice, for which 2d. was paid, containing not less than 25 per cent. of added foreign starch; and was not, therefore, of the nature, substance, and quality demanded by the purchaser, contrary to the provisions in that case made and provided." Mr. Richard Ellis, Town Clerk of Hackney, prosecuted, and Mr. Arthur Hughes defended.

Inspector Punter proved the purchase, and produced the certificate of the public analyst, which showed "liquorice, 75 per cent.; foreign starch, 25 per cent." A question here arose as to whether the prosecution was bound to call the analyst to prove his certificate, but Mr. Ellis contended that if the defendant disputed the certificate it was quite open for her to go to Somerset House and get another analysis.

for her to go to Somerset House and get another analysis.

Mr. Lane (quoting the Act) read: "Unless the defendant shall require the analyst to give evidence." The prosecution had had notice to produce the analyst, and if he was not called, he (the Magistrate) might reject the evidence of the certificate.

In cross-examination by Mr. Hughes, the inspector said that when he went into the defendant's sweetstuff-shop he did not expect to buy a drug. He had purchased pure liquorice. He did not purchase it as a sweetmeat, but medicinally. He considered that if he asked for liquorice he would get the concentrated extract of liquorice-root. He had purchased other samples of liquorice and found them pure.

Re-examined: I asked for liquorice.

Mr. John Stephen Warry, Medical Officer of Health for Hackney, and also public analyst, said he received from the inspector a sample of liquorice marked "2,575," and found it adulterated with not less than 25 per cent. of foreign starch. There was a gummy matter as well. So far as he knew, the gummy matter was used for the purpose of binding it together.

By the Magistrate: The 25 per cent. of foreign starch was exclusive of the gummy matter. This addition of foreign starch would lessen the medicinal value. Liquorice was sold pure for medicinal purposes, and also for eating as

a confection.

Mr. Lane: I suppose, treating it as a mere sweetmeat, the starch would not do harm in any way?-No. But liquorice is used as a popular remedy for cough, and the adulteration

would lessen its good effects.

By Mr. Hughes: Pure liquorice was sold as a drug. Extract of the liquorice-plant is what I mean by pure liquorice. The starch added to this was not injurious, but it lessened its therapeutic effects. In fact, the addition would tend to increase rather than diminish cough. Rice-starch is very debilitating in its mechanical operation upon the body, but it is a good food. I do not know the process of stick-liquorice making. As a medical drug it would be sticky, and in order to make the juice an article of commerce it would be necessary to use some gum. I have not much personal knowledge of this, but it is well known in the trade that when this liquorice-stick is made to sell as a sweetmeat something is added to the juice to make it cohesive. No starch would be necessary in addition to the gum. Adding the starch or flour renders it stiffer and less sticky.

Mr. Hughes: Do you suggest that, when added in moderate quantities, starch would make it heavier?-That depends

upon what you call moderate quantities.

Mr. Hughes: Well, 25 per cent.?—I don't know. Mr. Hughes: There was in this sample some part of the fibre of the root?—Yes, and 25 per cent. (not less) of foreign starch in addition to the gummy matter.

By the Magistrate: Extract of liquorice-root as a medical drug appears in the British Pharmacopæia.

Mr. Hughes: And it is in that state an aperient? Dr. Warry: I am not prepared to admit that.

Mr. Lane: What do you say the effect is

Dr. Warry: It is what is called a demulcent. tant matter introduced into the stomach would act as an aperient. I have examined other samples of this sweetmeat, and found them to contain starch. I have taken other samples, and examined them privately, and found them to contain matter which rendered this sweetmeat stiffer and less sticky. I did not know where this sample came from.

By Mr. Hughes: My samples came from different shops. One was pure, and had no forcign starch at all. I know it is usual to sell liquorice-stick as a sweetmeat combined with starch. The liquorice plant is never eaten as food.

By Mr. Ellis: Liquorice is sold largely as a demulcent for

children.

Mr. Lane: In that sense you would treat it as a drug. You have described it on the summons as a food. But I suppose children would buy it without reference to its demulcent properties? (Laughter.) Is there any ground for saying this, sold as a sweetmeat, is prejudicial to the purchaser ?

Dr. Warry: I think so.

Mr. Lane: In what way? Dr. Warry: Treating it as a popular medicine, its good effocts would be lessened.

Mr. Lane: Just so. Treating it as a popular medicine, so far as you have gone, you have made out your case. treating it as a sweetmeat, what do you say

Dr. Warry: I say it would not have the full effect of what

it is usually purchased for.

Mr. Lane: But if a person ate it as a sweetmeat the same as chocolate?

Dr. Warry: The addition of the starch would undervalue it as a sweetmeat.

Mr. Lane: But is not starch nutritious? Stout people are forbidden starchy substances because they contain too much sugar.

Mr. Ellis next called Mr. William Hood, importer of Solazzi liquorice. He said a very small admixture of gum might be considered necessary to render the finer descriptions of liquorice cohesive, but he would go so far as to say that absolutely no addition was necessary to make it up in the form in which it was presented to the public. It was quite innecessary to add any farinaceous matter. This was a very cheap substance which was used by unscrupulous people to increase the bulk of the article and cheapen it in price.

Mr. Hughes took exception to the word "unscrupulous." By Mr. Lane: You can buy rice-starch at from 1d. to 2d. per lb. Pomfret goods are sold as liquorice.

Mr. Lane: What are these Pomfret goods?

Witness: I have not gone into the mystery of their manufacture, but there is a large admixture of farinaceous matter-rice-starch and rice-flour-with the extract of liquorice-root.

Mr. Lane: He has not said a word as to the addition diminishing its value as an article of food.

Witness: Its value would be impaired as a drug and as a demulcent. In ninety-nine cases out of a hundred people expect liquorice to be efficacious in that way.

Mr. Lane: And take the hundredth case, where people

might buy it to tickle their palate? (Laughter.)
Witness: I have never heard of its being used in that way. I don't know that people would buy it as a sweetmeat. They would buy it as a remedy for cough.

By Mr. Hughes: I am confidential servant to Messrs. Ferguson & Foster. My firm sell a high-class article-the Solazzi. Possibly, if the sale of the other stuff was stopped,

it would increase the sale of ours.

Mr. Hughes (to the Magistrate): My client is a small shopkeeper, but I am here really representing the trade. If the sale of this sweetmeat is stopped, and these gentlemen sell a purer article, naturally their trade will increase.

Mr. Lane: Very properly so.

Cross-examination continued: There are other genuine extracts of liquorice besides the Solazzi. Some comes from

Calabria, in Italy. I don't know about Spain.

Mr. John Clark Foster, partner in the firm of Ferguson & Foster, said he had never seen liquorice made. His firm did not make it; they imported it. Genuine liquorice was the extract of the root boiled down. It had not been the custom for the manufacturer to adulterate the liquorice. He would not buy any that was adulterated or that had any addition. It was not a well-known fact in the trade that they had to add to the extract to make it cohesive. Gum was used to put a polish on the stick. Liquorice was imported in blocks from other countries. He did not admit that it is necessary to add something to it in order to make it an article of commerce. The prices of liquorice vary between 140s. and 84s. per cwt. But this difference in the price is not due to the fact that some foreign material had been added to the juice.

Mr. Hughes: Do you suggest that there is a standard of

Witness: In flavour, yes. One has a much better flavour than the other. The Spanish root is not so good in flavour as the Italian.

By Mr. Lane: Liquorice is sold largely as a sweetmeat and for medicinal purposes. We sell largely to confectioners. I have had samples examined, and found as much as 80 per cent. of foreign matter in them, and the foreign starch additions are usually of a common, damaged description. brands made in France come over with the adulteration stamped upon them: "70 per cent." and so on.

This was the case for the prosecution.

Mr. Hughes, in opening the case for the defence, said this was a very important action. He represented the confectionery trade. His first point was a question of law. In the summons the defendant was charged with selling liquorice as an article of food

Mr. Lane: Assuming that they wish to call it a drug, they

may alter it now.

Mr. Hughes (continuing) said no one would go to a confectioner's shop and ask for a drug.

Mr. Lane: But, on the evidence of Mr. Foster, this is not a very bad case, when he speaks of 70 and 80 per cent. of adulteration.

Mr. Hughes: First it is necessary for the prosecution to establish that liquorice is an article of food. Liquorice is the name of a plant. The law as here applied does not mean that the liquorice of commerce shall be the extract from the plant. As such it is a drug. The article we sell is not a drug; it is a sweetmeat.

Mr. Lane: You are asked for liquorice, and you sell something that is not liquorice.

Mr. Hughes: But it is necessary for the prosecution to show that this was sold to the prejudice of the purchaser. It is necessary to show that the purchaser has been deceived. In addition to this it will have to be shown that the substance sold was "not of the nature, substance, and quality demanded." It is necessary to show that there is a standard. The purchaser in this case did not ask for any particular quality.

Mr. Lanc: It has been held over and over again that par-

The Chemist & Druggist



Businesses Wanted Businesses for Disposal Premises to Let Auction Sales

SATURDAY, APRIL 1, 1893.

Partnerships Situations Vacant Situations Wanted Miscellaneous

PLEASE NOTE.

A DVERTISEMENTS for this Supplement must be received at the Office, 42 Cannon Street, E.C., not later than 5 o'clock on Thursday Evenings, for insertion in the current week's issue.

Advertisements must be prepaid. Remittances by post may be made in stamps, or by postal order made payable to "EDWARD HALSE," and crossed MARTIN'S BANK (LIMITED). To ensure prompt attention address all communications, endorsed "Supplement," to the PUBLISHER of "THE CHEMIST AND DRUGGIST."

A COPY of this Supplement is inserted in every number issued of The Chemist and Druggist. The Supplement will be sent free by early post on Friday morning to any person connected with the trade who will send in advance a stamped addressed newspaper wrapper for it, or will be given to any applicant at the Office after 9 A.M. on Fridays.

The Circulation of THE CHEMIST AND DRUGGIST largely exceeds that of any Journal in the world in connection with the trade represented.

OFFICES: 42 CANNON

STREET, LONDON, E.C.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C

CHEMISTS' TRANSFER AGENTS.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£1,100.—LONDON, N	price £950	9.—£1,500.—NORFOLK Valuation
2.—£1,500.—LONDON (City)	" £1,500	10.—£1,800.—CORNWALL Valuation
3.—£625.—LONDON, S.E	" £450	11.—£600.—SURREY price £550
4.—£530.—LONDON	" £500	12.—£750.—NORFOLK " £500
5.—£800.—LONDON SUBURB	" £850	13.—£2,000.—EASTERN COUNTY PARTNERSHIP , £2,000
6.—£600.—LONDON SUBURB	" £550	14.—£500.—KENT ,, £500
7.—£500.—LONDON, N	about £500	15.—£900.—EASTERN COUNTY " £500
8.—£560.—LONDON, N	price £400	16.—£760.—SUSSEX price about £700

Particulars of any of the above will be furnished on application. N.B.-NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs, Orridge & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London Agent.

NOTICE.—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale, suitable for Gentlemen with Small Capital. Full particulars on application.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

BRETT. F. J. VALUER, LEICESTER, 60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

NO CHARGE TO BUYERS.

STOCKTAKING UNNECESSARY.—Stocktaking is always dreaded by Chemists, and with a competent Valuer is not necessary.

F. J. Briett is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.

STOCKS AND FIXTURES BOUGHT FOR CASH.

LINCOLNSHIRE.—Finest position in large market town; death vacuacy; has done £1,600, now, in consequence of neglect, about £600; rare chance for energetic man; valuation about £500.

SURREY.—Dispensing and good-class Retail; returns £530; rent £30;

STAFFS. -£500 returns; no opposition; centre of 10,000 population;

rent £17; price £350.

YORKS. - £1,000 returns; rent nearly cleared by Agency; valuation £500.

ESSRS. BERDUE &

CHEMISTS' TRANSFER AGENTS & VALUERS,

JEWRY STREET, ALDGATE, E.C. 30 Established 1870.

NO CHARGE TO PURCHASERS.

1.—YORKSHIRE.—Large town; Light Retail and Prescribing Business; returns £1,700, and making a net profit of £600 yearly; good house; same bands twelve years; owner, entering the medical, will accept valuation of stock and fixtures, about £600.

2.—BIRKENHEAD (first-class suburb of); a light Retail and Dispensing Business; returns £450; seope for considerable increase; rent £25; good honse; price £300; every investigation.

3.—HOME COUNTY.—A Light Retail, Dispensing, and Preseribing Business; returns £850, at good prices; very handsome shop and premises; no keen competition; price £650.

4.—WARWICKSHIRE.—Unopposed village Business with valuable appointment; returns £700; rent very low; good house; shop is well fitted and stocked same hands many years; price £500.

5.—LINCOLNSHIRE (Coast).—Retail, Dispensing, and Prescribing Business; returns £600 under feeble management; capable of doing £1,000; good house in main road; well-fitted shop; price £420.

6.—GLOUCESTERSHIRE.—Market town; Retail and Prescribing Business; splendid chance for Dentistry; returns £525; can be increased; good profits; rent £28; price £360; convenient home.

7.—RAMSGATE.—Good position, main road; Retail and Prescribing Business, at full prices; returns over £400; can be largely increased; same hands 20 years; price £325.

8.—WARWICKSHIRE.—Small market town; Retail, Dispensing, and Prescribing Business; returns over £8 weekly, and capable of expansion; rent £20; good house; price £220; strongly recommended.

9.—LONDON, W.—Old-established Light Retail and Dispensing Business; returns £1,200; steadily increasing; handsome shop in main road of improving district; price £900, or offer.

10.—LONDON (5 miles out), Essex.—Retail and Prescribing Business; mopposed; returns £9 weekly; rent £30; good house and garden; price £300; selling through death.

11.—LONDON.—A good selection of about twenty gennine Businesses in various suburbs, requiring an investment of £100 to £300; full details will be forwarded on application.

12.—VALUATIONS personally conducted in any part of the United Kingdom. Full Stock Lists are taken by us, and no deputies employed. Twenty-two years' practical experience. Terms on application.

Messrs. Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

BUSINESSES FOR DISPOSAL

3s. 6d. for fifty words; 6d. for every 10 words beyond.

NCREASING Business in county of Norfolk; returning over £1,000; low rent; good house and garden; price £400. For particulars, apply to Smith & Sons, Wholesale Druggists, Norwich.

FOR immediate disposal, a gennine old-established Retail Business in large seaside town on East coast; good-class trade; returns £500; attisfactory reasons for disposal. For particulars, apply Smith & Sons, Wholesale Druggists, Norwich.

£160 -LONDON, N.E.—Handsome Pharmacy, well stocked, mahogany fittings; returns last year over £400; nice house, with garden; a gennine bargain; must be sold. Apply, M., 124 Richmond Road, Hackney.

GOOLE, Yorks.—For immediate disposal, a Mixed Drug and Grocery business; established over 50 years; average yearly returns, £2,000 for the past 5 years. Particulars of Mr. Briggs, Bridge Street, Goole; or, of Mesers Letthouse 4. Seltman, Hull of Messrs, Loftbouse & Saltman, Hull.

CROCKER

Mr. WILLIAM JUDD and Mr. ALFRED MANNERS,

Trade Valuers, Transfer Agents, and Accountants,

15 WALBROOK, E.C.
Having numerous inquiries for good-class Country Businesses, they invite communications from intending vendors.

NO CHARGE IS MADE UNLESS A SALE IS EFFECTED.

LONDON, N.—Family, and Dispensing, with valuable Proprietaries; good house; returns £700; price £650; specially recommended.

SURREY.—A valuable Retail and Dispensing Business, returning over £800, and rapidly increasing; with a good modern house; price £750.

KENT.—A neat little Retail and Family Business, capable of great increase; the returns have been £800 a year; rent £60; price £250.

NORFOLK.—(Death Vacaney).—A good Family Business, established over 40 years: returns £750: 7-roomed house; rent £45; price £600.

ESSEX.—Old-established good-class Country Business, returning over £1,700; the pharmacy is heavily stocked; rent £50; price £1,200.

NO CHARGE TO PURCHASERS.

BUSINESSES FOR DISPOSAL—Cont.

A T valuation, about £300; an old-established Business, consisting largely of own Proprietaries, in a most commanding position; returns about £500 per annum; ill-health sole reason for disposal. Apply, Thos. Tomlinson & Son, Ohemists' Valners, 9 New Cannon Street, Manchester.

READING, Berks.—In a busy middle-class neighbourhood, a Retail and Prescribing Business which, through old age, has been neglected, but now doing a fair business; valuation of stock and fixtures required, about £150; would suit as Branch, or to start cutting. R., Office of The CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BIRMINGHAM; thickly-populated district; very profitable Light Retail, with excellent dwelling-house; returns over £560; Prescribing and good Proprietaries, no Patents; grand opening for energetic man; no opposition and much scope; price £275. Address, "Prescriber," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MMEDIATE Sale.—Price £200, or offer.—A Retail and Preseribing Business, in growing Laneashire town; returns £8 or £8 10s., have been more, and could be improved with attention; rent £30, lease; good position in eentre of town; reason disposal, leaving England; valuation of stock and fixtures. Apply, 127/32, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

ONDON.—Wanted, immediately, a first-class City Business in a prominent position. J. A. H., 120 Kennington Park Road, S.E.

WANTED, a Light Retail, Dispensing, and Prescribing Business, returning about £1,000; Midlands or South of England (London support entertained); cash ready; Mixed trade not objected to. W. H. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TENDERS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

LAMBETH VESTRY.

TO CHEMICAL MANUFACTURERS AND DEALERS IN CHEMICALS.

THE Vestry of the Parish of Lambeth hereby give notice that they are desirous of contracting for the following articles, viz.:--

Pure Liquefied Carbolie Acid, Commercial Liquid Carbolie Acid, Carbolie Powder, Chlorinated Lime, Sulphuric Acid, Sulpbur of Commerce.

Suppur of Commerce.

Specifications and particulars, with forms of tender, can be obtained npon application to the Chief Inspector, at the Sanitary Offices, 33 Kennington Road, between the hours of 9 and 12 o'clock. Scaled tenders, directed to the Vestry and marked "Tender for Disinfectants," must be delivered at the Vestry Hall not later than 4 o'clock on Thursday the 20th April. The Vestry do not bind themselves to accept the lowest or any tender.

By order,

HENRY J. SMITH, Clerk to the Vestry.

Vestry Hall, Kennington, 28th March, 1893.

PARTNERSHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond

PARTNER with £1,000 required to join a Retail Chemist and Aërated-water business in China. Apply, by letter (strictest confidence), X. O., Office of The Chemist and Druggist, 42 Cannon Street, E.O.

PARTNERSHIP required by au Assistant with small eapital as Working Partner in a sound Chemist's or Drug and Drysaltery Business; good references. Address, "Chemist," 111 Derby Street, Burton-on-Treut.

PARTNER wanted with £200 to £250, in Light Retail and Prescribing Business, with Deutistry, in large Midland town; present proprietor wishes to devote more time to the Deutal branch, which is rapidly increasing; profits to be equally divided; references exchanged; every investigation allowed; a sure fortune for any ehemist. Full particulars, write, "Deutal Surgeon," Office of The Chemist and Druggist, 42 Cannon Street, E.C.

TO LET.

To Chemists and others.—To be Let, in a main street at Keusington, a corn r Shop with Residence over; private entrance. Apply to H. Marks, Estate Agent and Surveyor, 19 Ludgate Hill, E.C.

LABORATORY to be Let, in the City of London, with fixtures, chemicals, and apparatus; suitable for a teacher, analyst, or scientific gentleman; price moderate. Messrs. Orridge & Co., 32 Ludgate Hill, Loudon, E.C.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

To Pareuts and Guardiaus. - Wanted, in a first-elass Chemist's husiness, a gentlemanly and well-educated youth as an Apprentice; premium required. George Cheverton, F.C.S., Tunbridge Wells.

APPRENTICE required (indoors) in a high-elass Family and Dispensing Business; hours moderate; time given for study and recreation; premium. W. R. Selleek, Pharmaceutical Chemist, Stourbridge.

WANTED, to place a Youth as Apprentice, where there is every facility for acquiring a thorough knowledge of the business; Sheffield or district preferred. Apply, "Praceptor," e.o. J. Clark, 75 West Street, Sheffield.

SITUATIONS OPEN.

3s. 6d. for pitty words; 6d. for every 10 words beyond.

WANTED, for West of England, a qualified Manager; aged from 25 to 30. Apply, Mr. Gordon Dae, Solicitor, Frankfort Street, Plymouth.

ANAGER; qualified (outdoors); no Sunday duty; 1 evening a week off. Apply, with usual particulars, to Goodall's Drug Co., Lim., 40A Horton Road, Bradford.

JUNIOR (Minor); middle-class Busiuess; send photo, to be returned. Apply, with references, age, and salary required, to W. A. Attree, St. Michael's Road, Southsea.

WANTED, immediately, Assistant iu Chemical Warehouse. Reply, stating full particulars and wages expected, "Chemicals," Office of The Chemist and Druggist, 42 Cannon Street, E.C.

MMEDIATELY, a qualified Assistant; accustomed to good-class Dispeusing; aged 22 to 25. Also a Junior; not under 20. Apply, with usual particulars, to E. Pettinger, 30 Rosslyn Hill, Hampstead, N.W.

A SSISTANT for General Retail; abstainer; indoors; 26 to 28 years of age; good appearance; tull particulars; salary. Address, "Capable," Office of The Chemist and Dauggist, 42 Cannon Street, E.C.

BECK & JENNER require a competent outdoor Assistant for Hastings, age about 23; abstuiner preferred. Send photo, salary required, and full particulars, to Beck & Jenuer, 28 Grand Parade, St. Leonard's-on-Sea.

SOUTH AFRICA.—Wauted, an Assistant, about 25 years of age, Minor qualification, with first-class references, for a 3 years' engagement. Apply, personally, to H. Gilbertson & Sons, 11 St. Andrew's Street, Holborn Circus, E.C.

QUALIFIED Junior Assistant, to make Preparations and assist in Dispensing in first class West-end business; indoors; good hours; liberal salary. W., c/o Messrs. S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, London, E.C.

TRAVELLER (Wholesale perienced energetic man. Apply by letter, stating experience, with references and salary required, 6/15, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

CEYLON.—Wanted, an Assistant; Minor qualification; good Dispeuser; passage paid out; 3 years' agreement; salary, including board and lodging. Apply, "Export Department," S. Maw, Sou & Thompson, Aldersgate Street.

ESSRS. INMAN & CO. require the services of a man well up in manufacturing B.P. preparations and specialities; must be strictly sober and reliable. Apply, giving full particulars, salary, &c., 8 Shandwick Place, Edinburgh.

TUNBRIDGE WELLS.—At the end of April, a qualified Assistant, with good references, accustomed to Light Retail and Dispensing business; aged about 24 and upwards; 2 kept. Miller & Co., Mount Ephraim, Tunbridge Wells.

WANTED, about April 10, an Assistant, aged about 23; one who has been accustomed to good-class Family and Dispensing husiness. Apply, stating full particulars and enclosing photo (to be returned), to S. F. Wardley, Chemist, Tonbridge.

STRAITS SETTLEMENTS.—Wauted, a General Assistant; must have passed Minor Examination of Pharmaceutical Society; 4 years' agreement; aged 20 to 26; passage paid For full particulars apply, A. Duraut & Co., 32 Greshau Street, E.C.

WANTED, qualified Assistant; active and not afraid of work; outdoor; I evening weekly off; salary 35'-; good general experience; undeniable reference; at once. Personal application before 12, or by letter, Garman Bross, 272 Roman Road, Bow.

WEDITERRANEAN.—Assistant required with Minor qualification; must be a good Dispenser and Counterman, also able to keep accounts; salary £100, with rooms. Apply to "Minor," c_lo Hodgkinsons, Treacher & Clarke, 101 Whiteeross Street, E.C.

SEASIDE.—Junior Assistant, for Light Retail and Dispensing business; indoors; aged about 20 years; must be well up in Dispensing. Apply, stating age, height, experience, references, and salary required (enclosing carte, to be returned), to E. Miehell-Smith, Chemist, Weymouth.

AT ONCE.—Au energetic, trustworthy Assistant (under 30), for a uew business; must have had previous experience in store trade; half-holiday weekly, Sunday duty nominal; a comfortable berth to one suitable. Please state age, salary required (outdoors), and where last employed, Pearson, 10 Caroline Street, Cardiff.

MIDDLE of April (for a large quick Retail).—A qualified Managing Assistant, of good address, varied experience, and a smart Counterman, with originality, and capable of controlling others; aged about 35. State salary (outdoors), height, and full particulars, enclosing photo, Wand, Springfield, Kuightou, Leieester.

ABORATORY.—Smart young fellow wauted by large Wholesale Drug firm; previous Wholesale experience not essential, but must have had experience in making Suppositories and Pharmaeopocial preparations. Apply, with full particulars as to age, experience, and salary required, with reference, "Laboratory," Office of The Chemist and Druggist, 42 Cannon Street, E.C.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

OCUM (30); qualified; disengaged. H., 188 Lewisham High Road, S.E.

UNIOR, aged 21; Loudon (W. preferred). "Chemicals," 20 Gathorne Road, Wood Green.

A SSISTANT (25); unqualified; outdoors preferred. "Rhet," 51 Pillory Street, Nautwich.

TEMPORARY Manager or Senior; qualified. "Locum," 124 High Street, Tewkesbury.

JUNIOR, in good-class business; 6 years' experience; South preferred F., Chemist, Coggeshall.

OCUM-TENENS for Easter; qualified; abstainer. "Minor," 231 Daltou Road, Barrow-in-Furness.

ASSISTANT (23) desires immediate engagement; good experience. Fletcher, Black Horse Yard, Whithy.

Acacia House, Liudley, Huddersfield; aged 23; disengaged; outdoors preferred; good references.

QUALIFIED; medium height; aged 25; good experience. J., Martindale & Sons, English Street, Carlisle.

SITUATIONS WANTED-Cont.

JUNIOR (20); good experience; discngaged; outdoors; London, "Preliminary," 42 Navarino Road, Dalston.

ANAGER, Assistant, or Loenm-Tenens; experienced and qualified; single; aged 36. W., 38 Parsons Green, S.W.

SURGEON'S Dispenser or Part-time Assistant; in or out doors. Gardner Ash, 41 Delancey Street, Camden Town.

A SSISTANT, in London; time for study preferred; experienced; aged 26. J., 96 Rendlesham Road, Clapton, N.E.

JUNIOR; 4 years' experience; disengaged now; aged 20; London preferred. T. L. Salter, Bradnineh, Cullompton, Deven.

A SSISTANT (outdoors), or Branch Manager; aged 27; disengaged; good references. "Statim," 4 Derby Road, Croydon.

A SSISTANT (22), tall, requires situation; in or out doors; London or suburbs. "Statim," 10 Merrick Square, Borongh, S.E.

MANAGER, Assistant, or Dispensor; aged 37; loug, varied experience; Tooth-extractor. Stevenson, Towy Terrace, Llandilo.

RE-ENGAGEMENT, time for lectures or classes; highest references; ('hristian; 21; tall. Osmond, 17 King's Terrace, Southsea.

PART-TIME.—Hall qualification; aged 28; height 5 ft. 7 in.; London; disengaged. S., 184 Oldham Road, Newton Heath, Mauchester.

DISPENSER, Manager, or Assistant; good Retail, Branch, and Hospital experience; outdoors. H. A., 5 St. John's Road, Reading.

OCUM-TENENS, or Dispenser to a Surgeon, or Assistant to a Chemist; discugaged. Address, W. B., 4 Aston Street, Birmingham.

DISPENSER or Assistant (outdoors); Minor; aged 25; whole or part time; Prescriber; good references. "Extractor," P.O., Marloes

position of Trust; Wholesale or Stores preferred; good all-round experience; aged 30; permanency. "Mostyn," 195 Queen's Road,

ANAGER or Dispenser; outdoors; married; Extractor, Prescriber; varied experience; qualified. "Minor," 4 Medwin Street, Ferndale Road, Brixton.

OUTDOOR, or with view to succession; good London and Provincial experience; age 28; height 5 ft. 9 in.; good address; experience in travelling. Dymand, c/o Chisholm, Chemist, Addey Street, Sheffield.

FOREIGN Assistant seeks situation for summer season in watering-place; speaks flucntly Euglish, French, German, &e.; good references; experience in France and England. T. M., British Pharmaey, Mentone, France.

M. R. A. BUXTON, who represented Messrs. Maw, Son & Thompson in London, and who has occupied a similar position in a provincial Wholesale Drug house, is open to an engagement either home or abroad, with a good house. Address, 6 23, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading which can be obtained on application.

A DVERTISER wishes for information as to the best machine or apparatus for compressing Chemicals into Tabloid form. Address, 'Nemo," 12 London Street, Norfolk Square, W.

BARCLAY & SONS (LIMITED).—For sale, 60 £5 Six-per-Cent.
Preference Shares, £3 paid, at £2 10s., and 70 £5 Ordinary Shares,
£3 paid, at £2, to wind up an estate; would be divided in equal proportions. Apply, "Exceutor," e/o Black & Son, Perry Vale, Forest Hill.

O be Sold (wanting room) the complete Fittings of 3 first-class Chemist Shops, including various ranges of mahogany-fronted drawers, fitted with bevelled-edged labels; Spanish mahogany dispensing-screens, fitted with embossed mirrors; counters, counter-eases, shelving, &e.; also a large variety of new goods; good opportunity for Chemists commencing business; estimates free. Edwards & Fothergill, Old Haymarket, Liverpool.

THE BOTANICAL STUDENT'S SET OF MICROSCOPIC SLIDES.

Illustrating the structure of Stems, Roots, Leaves the cellular arrangement of Exogenous, Endogenous, and Acrogenous Plants, Nucci of Cells, Structure of Petals, Anthers, Poils of Grains and Ovary, Stomata Crystolishs, Raphides, Annular Rings, Spiral. Pitted, Scalariform and Laticiferous Ve sels; price complete, in portiolio cass, 12s.

Set of 12 of the more important starches, mounted in fluid to exhibit hilum, concentric rings, Xe., 10s. 6d, in case.

centric rings, &c., 10s. 6d. in case.
Post free from EDWIN TERRY, F.R.M.S., 41 Nightingale Lane, Balham, S.W.

LONDON AND LANCASHIRE FIRE INSURANCE COMPANY.

Head Offices 45 DALE STREET, LIVERPOOL. 74 KING WILLIAM STREET, LONDON. West-end Branch: 26 PALL MALL, S.W.

Annual Income Funds in Hand

£801,000. ... £1,026,000.

Premiums Moderate. Losses settled with promptitude and liberality.

Applications for Agencies specially invited from Chemists and Druggists in both Town and Country Districts.

MIDY.

Wholesale & Retail Chemist.

113 Faubourg Saint Honoré, PARIS. Is willing to accept

AGENCY **FOR**

PATENT MEDICINES

Suitable for FRANCE.

CHEMIST AND DRUGGIST," APRIL 29, 1893.

This Issue will have a Special Circulation in SOUTH AFRICA, INDIA, CHINA, JAPAN, the STRAITS SETTLEMENTS, and throughout the WEST INDIES.

For Advertisement Tariff, apply to THE PUBLISHER, 42 Cannon Street, E.C.

ticular quality is not what is meant by the wording of the Act.

Hughes: This is a substance generally known as Mr. liquorice; and I shall show by evidence that it is necessary

to add some ingredient to make it cohesive.

Dr. A. J. D. Hales, public analyst for Luton, said he had examined a sample marked "2,575," and found it to contain 18 per cent. of starch, in which was included liquorice starch. Liquorice was a plant, the extract of which was a drug. He did not think anyone would give pure extract of liquorice-root to children. He had always understood that confectioners' liquorice contained starch.

Cross-examined: Had seen what was called liquorice adultcrated from 7 to 12 per cent. and upwards. It was better to use starch, because more nutritious. There is no standard for liquorice. It is necessary to have a combiner when

making the sticks.

Mr. Wilson Casey, clerk to Messrs. Andrews & Co., said he had been in the business for thirty-one years, and knew several brands of liquorice. The French was stamped, showing the extent of the admixture. It was necessary to put a little starch to make it cohesive. Gum would do as well as starch. This was well known to the trade. (The witness here produced a jar containing the pure extract, which

Mr. Lane tasted).

By Mr. Ellis: I should not say there was 25 per cent. of adulterant in this, nor 18; perhaps there would be about 13 per cent. It depended a good deal upon the weather as to the amount of admixture necessary for making the sticks.

Fifteen per cent. was a good average.

Mr. Matthew Burn, in the employ of Peek Bros., said he was spice-buyer, and had a knowledge of the confectionery liquorice. Had been in the business twenty-five years, and had bought considerably of this liquorice. The sticks were made from the liquorice-root boiled down and made up by means of gum or starch. The different brands were marked, and varied in value.

Cross-examined: The object of the starch was to make it Had seen the dry liquorice-root, had seen it pounded down, and had seen the pure liquorice extract.

Mr. Hughes: In your opinion would the liquorice extract

in its pure state be very objectionable? Yes.

Mr. Lane: Why?

Witness: It would be bitter. Some of the French brands contain as much as 70 per cent. of adulterant, but respectable houses will not buy it. This particular brand is "Zuvia," and there is not 25 per cent. of starch in it. I have had a portion of it analysed by an eminent man in the City, and he say there is not 18 per cent. I sold this "Zuvia" brand to Barrett & Co., and they retailed to the present defendant. I have sold the same article to wholesalc confectioners and to druggists as well.

Mr. Lane: From whence does "Zuvia" derive its name? Witness: From a town or district in Spain. It is only a

fancy name.

Mr. Lane: And that contains a certain percentage of starch? -Yes, a small percentage of liquorice starch. There is no wheaten flour in it; and if there was a large quantity of

rice starch in it it would show.

By Mr. Lane: I go so far as to say that a certain quantity of starch is necessary to make it palatable as an article of food. Something must be mixed with it to diminish the flavour—the more concentrated the more bitter. And I don't think you could use anything better than rice starch to make it palatable.

Re-examined: My analyst said there was only 13 per cent. of insoluble matter, which I presumed to be part of the

liquorice-root. Rice was not mentioned at all.

Mr. John Watley, a manufacturing confectioner, of Euston Road, said he made some liquorice-sticks; but as a rule they were made abroad. Something must be added to the liquorice to make it workable.

Mr. Charles Barrett, wholesale confectioner, said he had been fifty years in the trade. He supplied the brand in question—"Zuvia." Liquorice-stick to be made must have some kind of powder to make it workable. (Witness illustrated the throwing-over of powder and rolling process.) Solazzi juice was of the finer description. He had always known an addition to the juice to make it workable, and, so far as he knew, the public were aware of this.

By Mr. Ellis: Twenty-five per cent. addition is not too

much. (The witness here offered Mr. Lane a piece of the sample, and said if he would taste it he would find it very pleasant.)

Mr. Lane: I have no doubt about that; but I will take

your word for it. (Laughter.)
Mr. Hughes: Would you, Mr. Barrett, consider that Solazzi needed an admixture to make it up

Mr. Barrett: Yes; I should say it needed something more than the outside gum to make it cohesive.

Mr. Ellis: And you would be surprised to find that the Board of Inland Revenue have found that there is nothing at all in the Solazzi liquorice?

Mr. Barrett: I should be. I should think there must be

5 per cent.

Mr. Lane, Q.C., in giving his decision, said the evidence given made it pretty certain that the liquorice of commerce and that used as a drug were two separate and distinct things. The evidence showed that the latter liquorice was an altogether unpalatable article, and very probably injurious to health if indulged in to any extent. Commercially, the liquorice had been recognised as an article of confectionery, made up to suit the different palates; and, if that were so, the purchaser went for an article which varied probably in the percentage of ingredients according to juice. Looking at it in that way, there was no offence under the Act. The article in question was 1d. per oz., and was of the nature, substance, and quality demanded. There were different qualities and prices of butter, but all were described as butter; and there was the mixture of chicory and coffee, but it was always called coffee, though of different prices and flavour. He found, therefore, that there had been no offence in this case under the Food and Drugs Act, and the summons would be dismissed, with 2l. 2s. costs.

CARTER'S LIVER PILLS.

On Friday, in the Chancery Division of the High Court, before Mr. Justice Chitty, Mr. Byrne, Q.C., mentioned the case of Carter's Medicine Company against Graham Carr & Co., which was down for hearing on a motion for an injunction restraining the defendants from passing off their pills as pills manufactured by the plaintiffs, who are the proprietors of "Carter's Little Liver Pills." Learned counsel said that his friend Mr. Macaskie, who appeared on the other side, was not present; but he was prepared to take no order except on condition that costs be costs in the action.

CONDENSED SKIMMED MILK.

THE Kensington Vestry have proceeded against retailers for selling condensed skimmed milk. Catharine Russell, of Golbourne Road, was fined 5l. and 12s. 6d. costs in respect of the sale of a tin of "skimmed condensed milk," said to be deficient of fat to the extent of 90 per cent., but Mr. Cassal, the public analyst, said it was impossible to skim off so much as 90 per cent. of the fat. As a rule, in genuine skimmed milk the quantity of fat which could be extracted was 55 per cent. Mr. Grain, for the defence, submitted that the name on the tin was sufficient, as the defendant was not charged with abstracting the fat. Mr. Curtis Bennett, however, was of opinion that the notice was not a proper description of skimmed milk, and fined the defendant as stated.

Thomas Geden, of Silchester Road, was also summoned, and had to pay a similar penalty for a similar offence.

WHAT IS SODA-WATER?

AT the West London Police Court last week, Mr. Turnham, of the Station Hotel, Churchfield Road, Acton, was summoned under the Sale of Food and Drugs Act for selling soda-water which was not of the quality demanded. It was stated that the soda-water sold to the inspector was simply carbonated water, containing no bicarbonate of soda.

Mr. Cornwall, who defended, said soda-water was manufactured in various ways, there not being any law regulating it. He gave a description of the way in which the sodawater was manufactured and sold to the defendant. He said that the gas was prepared from bicarbonate of soda, which was injected into the water, and with the escape of the gas on the cork being withdrawn there would be an escape of bicarbonate of soda. He submitted that it fully

answered the description of soda-water.

Mr. Curtis Bennett decided against the defendant, observing that it could not be soda-water, inasmuch as there was not any soda in it. The thing ought to be sold under the name of carbonated water. He imposed a penalty of 10s., with 12s. 6d. costs.

Mr. John Ford, of Ye Hostelry, Turnham Green, also landlord of the Roebuck, High Road, Chiswick, was, under two summonses, fined 10s., and 12s. 6d. costs, for each of two

similar offences.

The above were the first cases of the kind in the district, and were regarded as test cases.

NORFOLK GOODS.

BEFORE Mr. Justice North, in the High Court, on March 24, Messrs. F. Sutton & Co., agricultural chemists, of Norwich, sued Messrs. J. Robinson & Co., who carry on a similar business in the same eity, to restrain them from selling their cattle-medicines under the name of "Norfolk goods.

The plaintiffs claimed that the word "Norfolk" was a trade-mark registered by them, and had been used by them on their cattle-medicines as a "catch-word" for many years. The plaintiffs further claimed an interlocutory injunction.

Mr. Sebastian, on behalf of the plaintiffs, informed his Lordship that the respective solicitors had agreed to the following terms of settlement: The defendants to submit to a perpetual injunction in the terms of the writ, the plaintiffs waiving their claim for damages. The defendants also undertake to destroy in the presence of the plaintiffs or their solicitor all the labels and wrappers with the catch-word "Norfolk" imprinted thereon, and to pay plaintiffs' costs in the proceedings.

Mr. Eustace Smith, on behalf of the defendants, confirmed the details of the settlement, and his Lordship directed

judgment to be entered accordingly.

THE DENTIST'S APPRENTICE.

THE Judge of the Sheffield County Court promised to give his decision, on March 24, in the action brought by a youth named Reginald Whitfield to obtain from Mr. G. H. Bradford, dentist, trading at Sheffield and elsewhere, 2l. as damages and a cancelling of his indentures. The case, as reported by us last week, was that the plaintiff was apprenticed to Mr. Bradford, and finding he was not receiving the instruction in his profession to which he thought he was entitled, the present proceedings were taken.

Mr. A. M. Wilson, who represented the plaintiff, asked his Honour if he would give judgment.

His Honour: Will you show me where my jurisdiction is in the case?

Mr. Wilson: Your Honour derives it under the Employers and Workmen Act, 1875.

His Honour: I do not think that is so. I think you had

better consider the matter before asking for judgment.

Mr. Wilson: I know the case is fraught with some difficulty if it is to be brought under the Act mentioned. But I take it your Honour has power under the ordinary jurisdiction of the County Court to cancel a deed of agreement under certain conditions.

His Honour: The proceedings in the case are not regular for that purpose.

Mr. Wilson: In what way does your Honour suggest I should act?

His Honour: I think it would be better to let the matter

stand for the present and to make further inquiry into it. It would be well for you, perhaps, to consult counsel, because if I make an order without jurisdiction I should be person-

ally liable.

Mr. Wilson: Then I will take counsel's opinion after that,

your Honour. (Laughter).

Mr. W. E. Clegg, who appeared for the defendant, said if Mr. Wilson would withdraw the case he would not ask for any costs.

His Honour: That is a very good idea. In my opinion, as far as the merits of the case goes, the plaintiff fails. The fact that the defendant did not succeed in doing his full duty to the apprentice was caused by a series of unfortunate

circumstances. He had a good manager at first, and he had a good one now, but the intermediate men were all failures, and it was owing to that the lad did not obtain proper instruction in his profession. On the other hand, even taking the circumstances as they are, the evidence is very strong that the lad is fairly advanced. If he can make artificial teeth in his second year he might be able to do a great deal in his fifth year. Mr. Wilson would be well advised to withdraw the case.

Mr. Wilson: Very well. If there is no power to cancel the agreement there is no power to enforce it.

Mr. Clegg: Oh, leave that matter to me.

After further discussion the case was withdrawn, no costs being allowed on condition that no further proceedings are taken.

ENO'S FRUIT-SALT AND DUNN'S FRUIT-SALT AND POTASH TABLETS.

MR. WARMINGTON, Q.C. (with him Mr. John Cutler), applied to Mr. Justice Kekewich, sitting in the Chancery Division. on Tuesday last, for an interim injunction, until the trial of the action of Eno v. W. G. Dunn & Co., restraining the defendants, of Croydon House, from selling or offering for sale "Dunn's Fruit-salt and Potash Tablets" or any other compound for medicinal purposes not being or containing the plaintiff's "Fruit-salt" under the title of "Fruit-salt" or any other title of which "Fruit-salt" forms a part, so as to induce the belief that such compound in fact is or contains the plaintiff's "Fruit-salt." The parties, Mr. Warmington said, had already been in litigation, and the plaintiff rested his present case upon the judgment given by the House of Lords, as, he understood, also did his learned friend Mr. Augustine Birrell, who now represented the defendants.

Mr. Birrell: That was quite a different question, I say.

Mr. Warmington went on to say that in 1873 the plaintiff for the first time applied the term "Fruit-salt" to a saline preparation which he manufactured. He had a trade-mark, and defendants applied to register as a trade-mark a figure with the words "Dunn's Fruit-salt Baking-powder." Plaintiff opposed that registration, on the ground that, under section 73 of the Act, it was calculated to deceive. Mr. Justice Kay allowing the opposition and dismissing the application to register, the case went to the Court of Appeal; and, there being a difference among the Lords Justices, thence to the House of Lords, who by a majority decided that plaintiff had no exclusive right to the words "Fruit-salt"; but he established this right-that no other person could use the phrase by way of appropriating the reputation plaintiff had built up, or under the words pass off goods as those of the plaintiff which were not of his manufacture, though at the same time it would be possible for the defendants or any other persons to use these words "Fruit-salt" in such a way as to be justifiable if they inflicted no injury on the plaintiff. What the defendants were doing in the present case was to prepare and sell certain tablets in boxes labelled "Dunn's Fruit-salt and Potash Tablets," leading the public to believe, the plaintiff submitted, that they were largely composed of the plaintiff's fruit-salt, though containing another ingredient. These tablets, it was said on the label, were prepared from natural fruit-salt and pure chlorate of potash, for cleansing the mouth and throat and preventing disease, allaying inflammation, relieving dryness and irritation, and greatly diminishing the chances of infection. This case, his Lordship would see, came much nearer to infringing the plaintiff's rights than did the baking-powder case, the phrase used on the label of the tablets suggesting that the plaintiff's "Fruit-salt"—words of his origination, and by which he had gained a world-wide reputation—formed a leading ingredient. In support of this view he put in affidavits by Mr. R. Jackson, plaintiff's manager; Messrs. M. Carteighe (Messrs. Dinneford & Co.), President of the Pharmaceutical Society; Dinneford & Co.), President of the Pharmaceutical Society; G. R. Barclay (Barclay & Sons), Lionel Newbery (F. Newbery & Son), Thomas Farries (Burgoyne, Burbidges, Cyriax & Farries), Arthur Davey (Battersea Rise), W. King (Lavender Rise, Clapham Junction), W. C. Ford (Great College Street, Camden Town), and H. P. Carter. The general effect of these affidavits was that until Mr. Eno's adoption of the words "Fruit-salt" the deponents had not heard it applied to any preparation: that were "Fruit-salt" asked for by a to any preparation; that were "Fruit-salt" asked for by a

customer Eno's' would be proffered; and that the inclusion of the words "Fruit-salt" in defendants' label was likely to deceive the general public into the belief that Eno's "Fruit-salt" entered into the composition of the tablets. On this testimony, Mr. Warmington submitted, a case was made out

for the plaintiff.

For the defendants, Mr. Birrell read an affidavit of the leading partner of the firm to the effect that in 1888 he manufactured a baking-powder which he sold under the title of "Dunn's Fruit-salt Baking-powder," and detailed the proceedings which took place on his applying to register a label therefor, resulting in the decision that he was not entitled to register the words "Fruit-salt" as part of a trademark, there being a probability of the general public being deceived by connecting it with the plaintiff's preparation. At the time of this litigation he had not obtained a market for his baking-powder, and was therefore at a disadvantage in not being able to produce cvidence from tradesmen and others to rebut the evidence on behalf of the plaintiff. His baking-powder had now been on the market four years with the label he sought and failed to register in 1877, and he had not heard of or met with a single instance where a customer either in the trade or among the public had imagined there was any connection between his preparation and the plaintiff's. Plaintiff was now attempting not only to restrain him from selling his tablets, but also to prevent his using the words "Fruit-salt," which he had so used with his bakingpowder during the last four years without objection or remonstrance from plaintiff. Being a specific for the mouth and throat, he submitted it was not possible to confound the tablets with plaintiff's compound for an effervescent aperient water. He also tendered affidavits by Messrs. J. H. Hugill, of Miles Court, London, pharmaceutical chemist; Samuel Fry, Botolph Lane' (chief salesman Hanson, Son & Barker); Matthew Burn (Peek Bros.), of Eastcheap; Frank Knowlden (Grocers' Association, Limited); J. O. Pelton, Croydon; Sidney Fowle, King William Street; H. A. Bernard, Harrow Road; Chas Dickinson, South Croydon; and J. A. Gricc (Richard Grice & Son), Clapham. These were generally to the effect that the tablet wrappers and description were not likely to deceive the public into believing they were Eno's Fruit-salt, nor had they ever known it occur. The defendants and their counsel went on to say they had only just started these tablets, and therefore they had not much evidence forthcoming with regard to them. Plaintiff had failed to prove that a single person had been misled with regard to them, and he submitted that on the defendants' affidavits and the decision in the House of Lords they were entitled to his Lordship's judgment. Plaintiff was no more entitled to the words "Fruit-salt" than any other of her Majesty's subjects, unless it could be shown that they were used with the aim of deceiving the public by passing off the goods as Eno's. Beyond these two words nobody could lay a finger on what the defendants had done, and to restrain their use would, he submitted, strike a fatal blow at the principle of trade-marks and patents. The public, he admitted, were concerned in the former litigation, but the present case was that only of one tradesman against another. There was no evidence whatever of deception, and nothing more than a general statement of chemists and druggists of their belief that people might be deceived; but one would have thought that what Lord Justice Fry said on the subject would have been sufficient to prevent that being put forward. In all the circumstances he confidently asked his Lordship not to hold that plaintiff has any such property in the words "Fruit-salt" as should prevent another tradesman from using them as fairly descriptive of an article he makes of a different kind.

His Lordship, in delivering judgment, said he agreed with Mr. Birrell in his suggestion that there was a great difference between this case and that in the House of Lords. The question here, however, was whether persons of ordinary intelligence were likely to be induced into believing that in buying "Dunn's Fruit-salt and Potash Tablets" they were purchasing some preparation of Eno's Fruit-salt, or into which Eno's Fruit-salt entered. If that were so, these tablets ought not to be sold in the way they were. For his part, he could not help thinking that "Fruit-salt" had been chosen as part of the label of this tablet because of the fame the Fruit-salt had obtained. The defendants might surely have invented some catchword which would have described their preparation without offending the plaintiff. Bringing to bear

his knowledge of the world on the matter, it seemed to him a person walking into a chemist's shop intending to buy Eno's Fruit-salt might very well, on seeing these tablets there, say he would give them a trial. Directly that idea was mastered the way to deception was not difficult. With the warning of the House of Lords before them, he thought the defendants might have avoided the decision at which he felt himself forced to arrive. He should grant the injunction as asked for, but altering it to the following terms:-Restrain the defendants from selling or offering for sale "Dunn's Fruit-salt and Potash Tablets," or "Dunn's Fruit-salt and Chlorate of Potash Tablets," or any other compound for medicinal purposes not being or containing the plaintiff's Fruit-salt, under the title of "Fruit-salt," or under any other title of which "Fruit-salt" forms a part, so as to induce the belief that such compound in fact is or contains the plaintiff's "Fruit-salt," plaintiff giving the usual undertaking in damages until the trial.

A CREDULOUS CHEMICAL-MANAGER.

AT the Woolwich Police Court on Tuesday, before Mr. Kennedy, Edward Croy (26), fitter, no home, was charged on a warrant with obtaining 41. 4s. by false pretences from Benjamin Hills, chemical manufacturer, Deptford. James Wates, manager of the Woolwich branch of the firm, said that on February 2 prisoner called there. He was a perfect stranger to witness, but said he had been a clerk at their Deptford place for two years. He stated that he had been sent to Woolwich on business, and required a little more money than the governor had given him. Witness believed his statement and gave him the key of the desk containing the money, and prisoner helped himself. (Laughter.) Mr. Kennedy: What! Did you give the key to a man you had never seen before? Witness said he did, and that the prisoner took all the money that was there, including some gold and a cheque for 3l. 10s., which witness got changed for him. Prisoner said he was going to Mr. Geo. Mence Smith, one of Mr. Hill's customers, and left. Mr. Kennedy: And never came back again. (Laughter.) It was proved that the prisoner had never been in the firm's employment. He pleaded guilty, and was committed for trial.

Business Changes.

Mr. T. Ottey, chemist, Burton-on-Trent, has removed his business to Derby Street.

The business of the late Mr. J. S. Metcalfe, chemist and druggist, 55 Highgate, Kendal, has been taken by Mr. A. Heap.

Messes. Richard Huth & Co., chemical-merchants, Glasgow, are removing their offices to 61 Mark Lane, London.

Mr. C. Stewart, who has been with Messrs. Reid & Donald, chemists, Perth, for some time, is about to commence business as a chemist in Kirkcaldy.

MESSRS. G. VOGT & Co., essential-oil importers, have removed their offices from Wilson Street, Finsbury, to 20 Sherwood Street, Piccadilly Circus.

Mr. E. Witrofsky, essential-oil dealer, has removed from 29 Fenchurch Street, E.C., to No. 22 in the same street, where he has more convenient offices.

MR. JAMES WRIGHT, of Glasgow, agent for a number of druggists' specialities, has taken into partnership Mr. George Callander, and the firm are removing from Union Street to 60 York Street, Glasgow.

Mr. Albert N. Beck, of 11 York Buildings, Hastings, and Mr. Harry A. Jenner, of 28 Grand Parade, St. Leonards-on-Sea, have amalgamated their businesses, and are carrying on the said businesses at the addresses named, under the style-of Beck & Jenner.

Mr. W. Palethorpe, who has carried on a chemist's; seedsman's, and wine and spirit business for twenty-three years at Bingham, Notts, has retired, and is succeeded by Mr. Charles C. H. Cadge, late of Heckington, Lincolnshire, a medallist of the South London School of Pharmacy.

Trade Notes.

W. B. FORDHAM & SONS (LIMITED), York Road, N., are offering Cosney's "Premier" blacking—a good article attractively put np.

MR. WM. GARDNER, of Gloucester, the maker of sifting machinery, tells us that he has "just designed a new enachine for sifting and mixing small quantities of powder for people in a small way." Those interested will please note.

MESSRS. G. B. KENT & SONS, of Great Marlborough Street, W., are making a special offer of 6d. toothbrushes for spring trade. This is the "Griffin" brush, with four rows of bristles, and they will send a sample half-dozen box to any chemist on application.

Messrs. Blondeau & Cie. are again influenced to beneficence by the approaching Easter season. Their offer of special terms on orders received up to Easter Tuesday should not be lost sight of by chemists who can make room for a supply of their popular articles.

MESSRS. BLYTON, ASTLEY & Co., of Manchester, have appointed Messrs. Wright & Callander, of 60 York Street, Glasgow, as their agents in Scotland, and they will be in a position to accept orders and book contracts for medicated confectionery and all other manufactures of the firm.

Messrs. Oscar Moenich & Co., of 8 Coleman Street, E.C., are the agents in this country for the cau de Cologne made by Johann Maria Farina, Gegenüber dem Julieh's Platz. This perfume is one of the best of its kind, and has distinctive features which merit the attention of retailers. It vaporises uniformly, and leaves no trace of odour differing from the bulk. It is put up in the approved style.

The proprietor of "Dr. Williams's Pink Pills for Pale People," whose striking address to chemists appeared in our last week's issue, and again this week, is a Canadian who has made his medicine sell on a large scale in America. He is now in London, and is utilising Mr. J. Morgan Richards's valuable experience in the introduction of such articles on this side. He is anxious to do all that can be done reasonably to sell his pills through chemists, whose co-operation he invites. A supply of pamphlets is offered to any chemist who will apply tor them.

Malto-carnis.—Once more we have submitted to us a sample of Caffyn's malto-carnis, which, it is well known, is a combination of liquor-carnis, malt-extract, and chocolate, and is intended as a breakfast beverage. The point about which we note now is that since the Liquor Carnis Company have placed their factory near Aylesbury they have succeeded in improving the article markedly. It now mixes more readily than before. The high sustaining power of the food is maintained. It is in that direction that we believe there should be a big future for malto-carnis, for we have met with no cocoa preparation which staves off hunger and fatigue so well and that, we take it, is simply due to the combined properties of the ingredients.

Personalities.

Dr. Drinkwater, F.C.S., of Edinburgh, who is well known as a medical and pharmaceutical coach, bears a resemblance to George Grossmith, and, like that popular entertainer, has a remarkable faculty for presenting off-hand musical sketches of society. Most of his play is entirely original, and whenever he appears his performance is always looked upon as the piece de résistance of the evening.

MR. WILLIAM BECKETT, of Heywood, Manchester, the maker of fruit-syrnps, &c., is the subject of a biographical sketch in *The News* of last week. It is as an advocate of temperance principles that Mr. Beckett is referred to, but in this connection his efforts to replace alcoholic drinks with something as palatable and grateful arc spoken of. He started experiments, and "one point aimed at," we are told, "was to provide a syrup of orange and quinine free from

alcohol. In this he succeeded so thoroughly that many leading medical men pronounced it superior to any of the existing alcoholic preparations of quinine. Mr. Beckett from this time (1867) threw himself heartily into this branch of business. Tasteful beverages have been multiplied from the laboratory of Nature. Temperance has become 'attractive,' especially to the young; and old abstainers 'need not now go to bed without their "nightcap."'" A good portrait accompanies the sketch.

Mr. CONINGHAM, one of the Australian cricket team which is visiting England this summer, is a chemist, and a Queensland man, although he has lately been resident in Sydney. His inclusion is regarded with great satisfaction in Queensland, for this is the first time that colony has been represented in the Australian eleven. He learnt all his cricketing in Brisbane, where, apart from his duties as a chemist, he was for many years the mainstay of the Stanley Cricket Club, and was usually accustomed to head both the batting and bowling averages of the season. He is a lefthand medium bowler, occasionally putting in a very "hot" one, and a dangerous batsman, and altogether should prove of considerable assistance to the Australian eleven, which, though formidable as a batting team, is rather weak in the bowling department. Pharmaceutical cricketers in England will watch Mr. Coningham's record with peculiar interest.

Mr. Frederick H. Glew, the Clapham Road chemist, has been making some experiments on the earth-currents produced in the vicinity by the electric railway, which have created considerable interest in elecrical circles. Some two years ago Mr. Glew tested his gas and water pipes, and found evidence of strong earth-currents. He has for some time exhibited in his window a simple galvanometer which is strongly deflected, and is always in motion while the trains are running. An ordinary electric bell rings distinctly when connected in the same manner between the gas and the water pipes. The difference of potential has been measured, and is found to be about $\frac{1}{3}$ volt. The effect is less in wet weather than in dry. Mr. Glew has experimented also with an ingenious little reflecting magnetometer, and he finds that when the needle is set by a control magnet (the shop scissors) so that it is approximately at right angles to the railway, hardly any disturbance is observed; when set parallel to it, however, considerable deflections are observed. This experiment has been repeated, says the Electrician, with more elaborate appliances by Professor Ewing, and points to the currents, and not to the stray field of the motors or to moving masses of iron, as the disturbing cause. The iron tunnel of the railway, in fact, seems to have no screening effect at all, but is merely a huge uninsulated conductor.

Mr. W. J. C. MILLER, B.A, the Registrar of the General Medical Council, is the editor of "Mathematical Questions and Solutions from the Medical Times," which is a most profound book, published by Hodgson, of Farringdon Street, E.C. We have to go there for a solution of the following problem: --

In ninety-two and ninety-three
Twelve balls of ours we fix to bo:
Ten Girton maids, Urania's pets,
We bid, in unnamed quintuplets,
To each to come,
Five left at home,
While dance a dozen different sets.
The beauties don't deny, but all
Cry: "Most unmathematical;
Shall we, for random invitations,
Descend to work at Combinations?
Nay—let the males, to learn themselves,
Pile divers fives of us, in twelves
Of fives, till found by skill or chance is
Each separate twelve, that gives the dances

To every name
In tale the same."
The sauey Ten's demand.
That they may fit their fancies
With all the dozens of fives in hand—
We are bound to find an answer to it;
But, O ye Muses, how to do it?

The problem is one by the Bachelors of Cambridge

DRUGGISTS' ADVERTISING.



EEN advertisers are by no means numerous in the drug trade. The fact is, not many know how to advertise; they are either "not built that way," or that part of their education has been seriously neglected. It occasionally happens, however, that one stumbles into prominence accidentally. We knew a chemist at one time

who spent a shilling a week in advertising. That was all he thought he could afford, and he tried to make the most of it. He had two advertisements for the shilling—two lines in each. Now that man can afford more, he may regret the time he spent over the wording of these two advertisements. But it was not wasted. His idea was to get at least one of his advertisements at the top of the section, which was arranged alphabetically. Another chemist had the same idea, and between them there was an amount of ingenuity and skill displayed which would have done credit to some higher object. The results were splendid. The struggle was like this. Smith one week would get to the top with—

A BOTTLE of Smith's Cough Mixture will Cure a Cough. 1s. SMITH, Chemist, Blanktown.

The following week Brova was all in the running with his-

A BETTER Cough Mixture than Brown's doesn't exist. Try 1s. Battle. Brows, Chemist, Blanktown.

to which Smith would retaliate with something of this nature:-

A BALM for the Lungs, Checks Coughs, Loosens
Phlegm. 1s. bottles.—Sairri, Chemist, Blanktown.

Without knowing it these men were doing each other great service, and if they had had larger ideas of expenditure they

would quickly have become advertising adepts.

Of recent years there has been decided improvement in druggists' advertisements in this country. Originality is more aimed at, and not infrequently someone happens to hit on a good thing. It must be admitted, however, that eccentricity is now and then confounded with originality, advertisers attract attention to themselves rather than to their goods, and there is, too, a woful regard for the respectability of the profession exhibited by some who attempt to follow modern styles of business. Perhaps we are not yet quite ripe for American advertising methods; still the leaven is here, and its presence is recognised. It may, therefore, be of interest to place before retailers some "tips on advertising" which Mr. A. R. Elliott has communicated to the American Druggist. In the local paper of almost every small country town, says Mr. Elliott, will be found two or three columns of business or professional cards. These advertisements remain from one year's end to the other in the same type and are never changed. All advertising pays, but this class of cards, run in this stereotyped way, are about as near valueless as any can be. Tuey are dull reading. They say nothing interesting to the reader. They suggest no want in the reader's mind which the advertiser can supply. To say that Jones is a druggist is not all, but to say that he can cure an ache of some kind is getting right down to busines. If the reader has an ache when his eye happens to catch Jone's card, it does not appear to him that Jones can cure it. Jones's card is

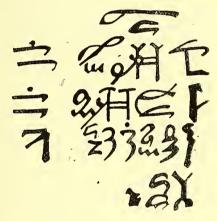
N. JONE'S, Family and Dispensing Chemist, 147 High Street, Dal town. Parent and Proprietary Medicines always in stock. Physicians' Pre-criptions carefully dispensed.

But if the reader happens to have any one of the six kinds

of aches mentioned in the next card, or if his wife is suffering from one of them, or one of his children, or a friend, he is interested. Richards has hit his case. He hurries right around to Richards's drug store to secure relief "for a shilling."



This is "catchy" enough, and although not, perhaps, the style best suited for English business, there is an idea in it which would attract. Here are two ideas of Mr. Elliott's in regard to the dispensing trade in which we retain the American style:—



This is a prescription from the Papyrus Ebers, and was written 3,500 years ago, about the time that Moses was a student at Heliopolis.

It's all Greek to you? Worse than that, it's all Egyptian. Some prescriptions written now are almost as hard to decipher, but none are too hard for us. That is our business to put up all sorts of prescription's accurately, carefully, quickly.

All our drugs are of the BEST; it don't pay you or us to have any other. Then we have some fine cigars that you can smoke while you wait, if you smoke. But it's on prescriptions that we want you to remember us. You can t afford to be careless about prescriptions.

H. H. HAY & SON,

PRESCRIPTION DRUGGISTS,
PORTLAND, ME.

The use of striking illustrations in advertisements is half the work done. Finely engraved blocks are wasted because they cannot be printed properly in the rough and rapid pressing of daily newspapers. Better to have clear outline drawings or silhouettes, such as is depicted in the fol-



GOING FOR THE DOCTOR.

Call on your way back and let me fill your prescription. It is important that you have it done right. To do it correctly is a science. In twenty years of business I have not made an error in this department. My store is open day and night.

This is a style of advertisement which is coming much into vogue. Various meanings can be taken out of that expression, but we shall let it go. Prominence to the first word in the advertisement at once attracts attention. Make it something that will suit everybody, and, if possible, offend

A New York advertisement-expert is the author of the following, which was set up in pica old style type, in a space 4 inches deep:-

SPONGE.

A self-respecting man owes himself a sponge-bath every morning of

course; and it pays to use a sponge.

One does not pay all the deuts he owes; and, if any debt is particularly sacred, the payment of it ought to be made as pleasant as possible. Hence, But there's a good deal to know about sponges before one can pick them

p from the street hawkers.

Drop in, and we'll tell you what little we know; it may be useful.

TRINITY DRUG STORE CO., Druggists.

Dallas, Texas.

Never insert an advertisement in a paper until it has been prepared with the utmost care. Never prepare it in a hurry. If necessary, write it not once, but many times. Boil it down by eliminating every unnecessary word. Make it short, sharp, and pointed.

The more advertising you do, the more power what you have done has. The first insertion of an advertisement in a medium makes but little impression. The second insertion makes a deeper impression than the first, and also helps to deepen the impression of the first. The third insertion goes still deeper, and also helps the second before it, and so on ad infinitum.

Chemists need not do all their advertising in the newspapers. It can also be done through all the customers who come into the shop, and all the goods that go out of it. There is a young chemist in a Californian town who is unlucky as to location, and not too well supplied with the almighty dollar. Mr. Dodge is his name, and he is artful. He goes in for double-labelling all the articles he sells. There is one label that goes on the front of the article. There is another label that goes on the back of the article. The front label denotes the contents. The back

label advertises his business. The labels are all cheap ones, yet serve his purpose. Here are a few examples. The first two refer to prescriptions. One of them reads: "We will fill your prescriptions accurately, with the purest drugs, at the most reasonable prices." Then follows the address. The other reads: "This prescription has been carefully prepared. The finest quality of drugs and the greatest care have been used in its preparation." Another label reads: "This is only a scheme to inform you that we can make it interesting for you in the brush and comb line." Still another says: "Only an advertisement to remind you that we have a full stock of patent medicines." Another label calls special notice to the fact that the dealer guarantees the quality and price of the goods he sells. A large label that Mr. Dodge uses is devoted to "Plain Facts," and is as full of them as an egg is of meat. He cites four reasons why his trade is steadily increasing, and concludes that "It may be well for you to think of these facts when your necessities call you to a drug-store." It is in perfumes, hownecessities call you to a drug-store." It is in perfumes, however, that Mr. Dodge is particularly happy. One of his labels reads: "Our three points. 1st. We buy only leaders. 2nd. We keep them in the dark. 3nd. We sell from small sample-bottles. Result, best bought, best kept." Another label says: "Light spoils perfumes. We keep ours in the dark, and make a speciality of buying only 'leaders,' so we have no second-hand goods to dispose of." Such things as these tell. The point is to do the thing neatly, say on these tell. The point is to do the thing neatly, say on a label 1 inch or $1\frac{1}{2}$ inch long by $\frac{3}{4}$ inch deep, and with a thinrule border. Cheaper advertising there could not be, and it is bound to pay.



"Get out of the rut!" says Mr. Elliott.
Think! think! det up in the night to think. [Which does not go at all with English ideas, and is decidedly bad business in our opinion.] You cannot do paying advertising without thinking. Study your business, be original in your methods, adopt a good thing when you see it, at once—before your competitor can possibly get ahead of you. Act to-day; you may be "left" to-morrow.

* REVIEWS *

Qualitative-analysis Tables and the Reactions of Certain Organic Substances. By E. A. Letts, D.Sc., Ph.D., &c. Belfast, 1892: Mayne & Boyd. 4to. Pp. 96. 7s.

PROFESSOR LETTS has compiled this book primarily for his own students, many of whom are medical students. To that extent it interests us. We may divide it into six parts—analysis of (1) simple inorganic salts, (2) mixtures thereof, (3) alkaloids, (4) urinc, (5) toxic substances (toxicology), and (6) organic bodies of the nature of acids, alcohol, ehloroform, glycerine, albuminoids, &c. In introducing the student to the analysis of a simple salt, the teacher has the best opportunity of fostering his powers of observation and inculcating habits of carefulness. Professor Letts does not quite reach the high-water mark in this respect. For example, when the substance is in solution he does not give directions for ascertaining whether the solution contains a solid or not, or whether it is acid or alkaline. If the "solution" happen not to contain any substance at all, which sometimes is the case, the student must feel very foolish when he has worked through the twenty-two pages of tables which Professor Letts has provided him with. A sentence at the beginning would save that. We observe also that, although soluble silicates and benzoates are provided for in the latter part of this section, there is no mention of the action of hydrochlorie acid upon them in Table II. The method of examining for a single acid is unnecessarily long (Table III.). Nitrate of silver and chloride of barium divide most of the acids into two sharp groups, but only the barium salt is mentioned in the table, and that merely for the purpose of distinguishing chromates and sulphates. Table IV, should come before III. Scries 2 is a better set of tables, and it would be well if all who use the book for detecting single salts would go through pages 32 and 33 before touching page 2. So far as the scheme of analysis for the bases is concerned, it is very good indeed; so also is the acid-table in regard to separation. The section on alkaloids is, as far as it goes, instructive, but is only of use to medical students, who get a specified number of alkaloids. If codeine, eoeaine, cinchonidine, and a few more of the common medicinal alkaloids were thrown into Table XI. it would be upset. It is an error to say (page 61) that the salts of strychninc are insoluble in water. The schemes for the examination of urine and urinary calculi are concise and practicable, and the remainder of the sections are fair general descriptions of the subjects and the substances involved. Should a second edition of the book be called for we would suggest the insertion in the blank spaces of descriptions of Reinch's, Marsh's, and other tests referred to in the tables, but not described.

American Proceedings.

WE have to acknowledge several volumes of Proceedings of American State associations connected with pharmacy. The national body (American Pharmaceutical Association) now issue a preliminary report of the transactions at the annual meeting, so that the members may have a full account of what has taken place in their hands earlier than it is possible to issue the bound volume. This report is well and creditably done, and is issued by the Secretary, Professor Maisch, of Philadelphia.

The report of the Ohio State Pharmaceutical Association, which is issued by Mr. Lewis C. Hopp, Cleveland, O., refers to the meeting held in Dayton, June 9 to 11, 1891, and only reached us a month or two ago. We refer to the belated report because of some points of interest in it. First it may be noted that the Association is intertwined with the Ohio Board of Pharmacy, and is thus virtually the examining Board of the State. The fact that it is an official body may thus account for slow publication. In addition to a pharmacy law the State has an adulteration law affecting food and drugs. In this law the term "drug" includes all medicines for internal or external use, antiseptics, disinfectants, and cosmetics. The term "food" in-

cludes all articles used for food or drink by man, whether simple, mixed or compound. The minimum fine under the Act is \$25, or thirty days' imprisonment, which ought to be a terror to evil-doers. The pharmacy law regulates the sale of poisons generally, as it restricts the sale of all medicines (unless in special cases) to registered pharmacists, but there are special Acts dealing with the sale of arsenie and of morphine, and the labelling of poisonous articles. By the last it is required that

the dealer shall affix to each bottle or package of such drug, chemical, or poison, a label printed in red ink, having on it the name of the article by which it is commonly known, the cautionary emblem of the skull and cross-bones, the words "caution" and "poison," and, in addition thereto, at least two of the most readily obtainable effective antidotes to such poisonous article.

On May 1, 1891, there were in the State 2,703 registered pharmacists and 650 registered assistants—a decrease of 400 in seven years. The Pharmacy Board examined 386 candidates of higher grades during the year, and only 181 passed. Apparently while devoting some time and thought to the scientific side of pharmacy, the Association looks carefully after the trade interests of its members.

The California Pharmaceutical Society has two meetings a year. The one held at Los Angeles last year must have been entertaining. There is one thing about American pharmacists which we always admire: they are not afraid to speak naturally, and to be reported verbatim. The Society on this occasion called in a gentleman of the name of McNeil to give them "some pointers on detailers." He is not a druggist, but if he had been in the trade all his days he could not have known our little weaknesses better. The members took his "pointers" philosophically. The window weakness exists there too, as this extract shows:—

Mr. Furbish: There is a little point now about the flies that the druggists would do well to note. There are four drug-stores in this city whose windows have not been dressed for two months. Their windows are full of dead flies, and——

Mr. McDonuell: You could not say there were no flies on that man. (Laughter.)

Mr. Furbish: In some of them they are just changing their windows [in May] for the first time since Christmas. Whether it will bring in any trade or not remains to be seen.

Yes, this report is very entertaining. A Mr. Off apologised for the very slack attendance the day before. "Monday," said he, "is always our busy day here in Los Angeles, on account of Sunday being a prohibition day; therefore, we could not well get here." There is a world of meaning in the apology. A member was giving his experience of a noted elixir, when the following interruption occurred:—

Professor Searby: Did I understand you to say that that was your mother-in-law, sir? (Laughter.)

Mr. McDonnell: No, sir. A man may have some consideration for even his mother-in-law.

Mr. Searby: I was going to say, sir, that to give two such conglomerations as that emulsion of paraffin and elixir of lactopeptine, even to an undesirable mother-in-law, was testing human nature pretty severely (Langhter)

The jokist is a staid Yorkshireman, a major man, who has settled down in California and done well.

We have also received the Proceedings of the North Carolina Pharmaceutical Association. There are several useful papers in this volume from which we hope to quote.

The Law of Wills. By C. E. Stewart, M.A. Effingham Wilson & Co. 1s. 6d.

This is a revised edition of a useful little handbook which provides all the information necessary in ordinary cases for making, proving, or disputing wills.

[&]quot;EUCALYPTEOL" is the name which has been given to a di-hydroehlorate obtained by the action of hydrochloric acid upon eucalyptus oil. It appears to be cineol di-hydroehlorate, for analysis shows that its formula is C₁₀H₁₆·2HCl. It is used in France as a bronchial stimulant as well as for its antiseptic properties.



'SANITAS-

EUCALYPTUS DISINFECTORS"

(PATENTED).

An Automatic Appliance for Disinfecting the Air, and Scenting Rooms, &c.

Price 1s. each.

"SANITAS-EUCALYPTUS OIL,"

For charging same, and for use in place of ordinary Eucalyptus Oils.

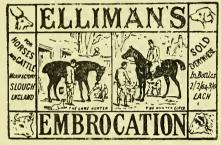
In 1s. Bottles.

THE SANITAS CO. (LIM.),

BETHNAL GREEN, E.

See pages 72 and 73 of the Winter Number, January 28, 1893.

SHOW CARDS, 24×17 or 17×12 Sent to any address in the United Kingdom.



See first page, facing inside of front of cover, of this issue for latest particulars.

What's good for BODILY PAIN?



SILICATED CARBON FILTERS

PATENT SELF-AERATING
MOVEABLE BLOCKS
WORKS, BATTERSEA LONDON, S.W.

MUMFORD'S

(FARRINGDON ROAD, LONDON, E.C.)
THE REST THAT CAN BE PRODUCED.

PURE CRUSHED LINSEED (18/) 10 7,14 &

STARCH POWDER (26/)

PURE
FULLER'S EARTH
(Light Colour)

PURE
FULLER'S EARTH

1 cwt. oarriage paid; or ↓ 7,14 & 28 ibs. free on rail Lond.

1 cwt. carriage paid; or ❖

7, 14 & 28 lbs. free on rail Lend.

1 owt. carriage paid; or ≰
7, 14 & 28 lbs. free on rail Lond.

1 owt. carriage paid; or 🛠 7, 14 & 28 lbs. free on rail Lond.

CARRIAGE PAID

To Railway Stations within the radius of 200 mi es from London (and allow ance made for distance beyond) on 112 lbs. and upwards of above articles.

The lowering of the Railway Rates permit alterations as above.

"We have subjected FLETCHERS' CONCENTRATED LIQUORS to a prolonged test, and are able to report that, when diluted according to the directions given, the resulting Tinctures, &c., are indistinguishable in strength, appearance, and efficacy, from the official preparations. They have the additional merit that their s rength is constant and easily ascertainable, and that they keep well. From the mere point of view of convenience, therefore, they have obvious advantages, and we can conscientiously recommend them."—The Practitioner.

Editorial Comments.

THE OPIUM BOOM.

OPIUM has been the one great article of interest to the drugtrade since about the middle of last week. There are a few houses here who appear to have had confidence in the drug all along; but the majority of our druggists do not seem to have believed in any great advance in price, and it must be admitted that the experience of the last few years has been altogether in their favour. The Smyrna and, in a certain degree, the Constantinople dealers, upon whom we are dependent for our information concerning the outlook of the growing crop, have for a long time persistently held out prospects of a continuation of moderate prices. Some of them at any rate must have had faith in their own prophecies, for it is generally believed that a good many Smyrna opium merchants have entered into contracts for the delivery of opium to American buyers, of which they would now beonly too glad to be quit without a loss. There was, however, all along a minority in Smyrna and Constantinople who did not join in "bearing" the market and according to whom the area of production had really been curtailed this scason to such an extent (partly on account of the unremunerative prices of former years, and partly as a result of the unfavourable weather at the time of the sowings) that higher quotations must inevitably be the result as soon as the full. extent of the deficiency became known. This section hasnow gained the upper hand, and since last Wednesday message upon message has kept pouring in from Smyrna announcing a fresh advance in price and painting the prospects of the crop in gloomier and gloomier colours. The news received here on Monday was that 14s. per lb. had been paid in Smyrna for current manufacturing opium of the same quality as that on the previous Wednesday sold at 9s. 4d. per lb., and which was offering freely at the beginning of the year at 7s. 6d. per lb. It is now asserted with much pertinacity that "the entire crop has been destroyed," and some of the importers here who maintain direct relations with Smyrna express themselves confident that a quotation of 20s. per lb. for manufacturing opium will be reached before

the trade adjourns for the Easter holidays. Such an excited condition of things as that now prevailing in Smyrna could hardly fail to affect our own market, but though London has also caught the contagion of the excitement, and a considerable business has been done here, too, at rapidly rising rates (one account speaks of 11s. 6d. per lb. having been paid for good Karahissar opium), it cannot be denied that the persons who are working for a rise in London have a much harder task in impressing their views upon buyers than those who are engaged in a corresponding work in Smyrna. The alarmists point to previous experiences of rapid rises in "Look," they say, "at what happened in 1874, opium. when druggists' opium rose within a very few weeks from 6s. 9d. to 25s. per lb.; or in 1867, when you could buy freely at 18s. per lb. within a still shorter space of the day on which a case of Karahissar brought 52s. per lb." Well, it is no doubt true that opium is, commercially, one of the most sensitive drugs; but the conditions of production are not. nowadays, what they were twenty-six, or even nineteen. years ago. Persia has since that time become a great factor in the opium-market, the cultivation in European Turkey has been very considerably increased, and even in Asia Minor the production of the drug is no longer confined to the small area within which it was once circumscribed. We should not like to say that the time will never return when opium may quadruple in price in a month, or even that it is impossible that we may stand upon the threshold of such an event at this moment; but the opportunities for such excessive fluctuations are growing less and less every year.

MEDICAL COUNCIL WORK.

LAST week we referred to the present condition of the medical profession as viewed from the lowest rung of the ladder, and then it appeared that a temporary check had been given to the number of aspirants for medical honours. With the Medical Register for 1892 * before us a different aspect is presented, this register dealing solely with those who have reached the top of the qualifying ladder. During the year the registrars added the names of 1,513 persons to the register, a number which has been exceeded only once before—viz., in 1887, when 1,531 were registered. In 1892 the names of 603 persons were removed from the books, thus leaving the total at 30,590 persons legally qualified to practise medicine, surgery, and midwifery. Of these 18,622, or 60 88 per cent., have been registered in England; 7,320, or 23.93 per cent., in Scotland; and 4,648, or 15.19 per cent., in Ireland. The new Colonial Register, instituted by the Medical Act (1886). contains fourteen mames, representing the Universities of Melbourne, Sydney, New Zealand, and Bombay, the last of which was recognised by the Council last year in consequence of the extension of the Act to India by Order in Council. The figures in regard to England, Scotland, and Ireland must not be taken to mean that the persons are domiciled in those countries. If that were so the proportion of doctors to population in England and Wales would be 1 to 1,557, in Scotland 1 to 550, and in Ireland 1 to 1,012, which would show Scotland to be an abnormally unhealthy or doctor-ridden country. As a matter of fact the figures indicate that Scotland educates more than its share of medical men, many of whom, once they get their diplomas, migrate elsewhere. Whoever heard of a spot on the globe which civilisation has touched without a Scotch doctor? The bare idea is an outrage on natural laws.

One contrast cannot fail to strike those connected with the drug-trade—viz., that while it takes 25,942 medical men to

serve Great Britain, there are only 14,520 registered chemists in the same area. If everyone of the 25,000 wrote prescriptions and none dispensed their own medicines, what a fine thing it would be for the 14,000 chemists and druggists!

Turning to the financial part of the General Medical Council's work, we find that we are dealing with a very rich body. Its investments are as follows:—

•					£
Consolidated:	23-per-cent. sto	ck in England			35,000
,,	***	Scotland			4,300
"	**	Ireland		٠.	852
>>	75	for dental pu	rposes		8,000
					£48,152

This is a nice nest-egg, but the yearly income of the Council apart from that is exceedingly handsome. From the three countries come fees amounting to 7,576l. 7s. 6d., and the sale of Registers and Pharmacopæias takes the sum beyond 8.0001. This is a very large amount for such administrative purposes as are imposed by the Medical Acts, and it is worth looking at the figures on the expenditure side. First, there are three branches to maintain, England for local purposes having its branch, as well as Scotland and Ireland. All appear to work economically, the total expenditure on their account being 1,473l. Next, we have the payments to the members of the General Council, who come to London twice a year, the cost of that being 2,144l. 10s. Here there is "payment of members" at a far handsomer rate than Mr. John Burns wants for his $7\frac{3}{4}$ -hours' day. The Executive Committee, who probably did more work and less talk, cost 215l. 14s., visitation of examinations is put down at 315l., printing at 794l., law expenses at 469l., and salaries, house expenses, &c., at 1,076l., with certain miscellaneous items. The amount spent on the British Pharmacopæia was 1611. 17s. 6d., but the receipts on this account were 3421., and 50l. 17s. 9d. for the Addendum. This is a part of the accounts to which, as representatives of the drug-trade, we must call special attention. The General Medical Council are entrusted with somewhat narrow powers of expenditure. They are charged with the supervision of medical education and registration, and the compilation of a Pharmacopæia. Their expenditure must be within these lines, and that accounts for the very large sum spent upon themselves. With that we need not quarrel, but we urge, in view of the annually accumulating funds and the want of any organisation for practically testing criticisms of the pharmacopeial standards, that the Council should provide the Pharmacopæia reporter with facilities in that direction, either by founding a laboratory or subsidising one already in existence. The method at present adopted for revising the Pharmacopæia by taking unchallenged published criticisms and tacking them on to the existing text is not a happy one. It excludes much good work of a controversial nature which may be beneficial to the official standards. It is the duty of the Council to settle such matters, and not to leave critics to fight it out amongst themselves and then to adopt the victor's arguments or factors. By a simple extension of the present system of supervision, and the co-operation of pharmaceutical authorities (which, after all, is essential), a most efficient pharmacopæial department could be maintained, to the immense advantage of mcdicine.

A MODERN RESEARCH.

THE story of the introduction of strophanthus into medicine as told by Professor T. R. Fraser in his communication to the Royal Society of Edinburgh, is one of the romances of

^{*} Published by Messrs. Spottiswoode & Co., 54 Gracechurch Street, E.C.

science, and is fittingly rehearsed in the bulky reprint from the Transactions of that Society. In this we are taken at onee to a district of Africa, fertile of difficulties to politicians, where Christian heroes, from Livingstone to Mackay, have laboured and died, and where many less-disinterested pioneers of civilisation have carried the English flag. It was some of these men who became aware in the sixties of the use by the natives of Gaboon of a peculiar vegetable poison for the tipping of arrows. David Livingstone was the first, it appears from Dr. Fraser's monograph, to observe the use of strophanthus in this way, and his medical knowledge enabled him to say in his "Narrative," published in 1865, "It is possible that the kombi may turn out a valuable remedy." Probably Livingstone had his information that the poison was strophanthus from his companion, Kirk, who was a better botanist than the famous missionary explorer; indeed, Sir John Kirk, in a letter to Dr. Fraser, states that the source of the poison was first identified by him in 1861, and he had known an allied or identical species in Sierra Leone in 1858. Schweinfurth, Cameron, Felkin, and other noted explorers have heard of the famous poison, and have told tales of many a big hunt in which buffaloes, elephants, and hippopotami were laid low by tiny arrows tipped with the mysterious kombé. Sir John Kirk, having penetrated the mystery, took steps to bring the poison under the notice of physiologists at home, and about 1861 he sent specimens of the poison and the arrows to the late Dr. Sharpey, who investigated them physiologically, but had not made the results known before Dr. Fraser published a preliminary note on the same subject in 1870. It was at Sir Robert Christison's suggestion that Dr. Fraser took up the subject, and, as is now well known, he worked at it chemically, physiologically, and therapeutically until 1885, before he put forward strophanthus as a therapeutie agent; and it is mainly to the patient care exhibited by his research that the drug at once took a place, and that a permanent one, in our materia medica. The history of the introduction of the drug is full of interest, and Dr. Fraser has been eareful in his monograph to preserve those incidents which show where the untutored savage and the modern scientist meet on common ground of knowledge. Leaving out native secretiveness, which kept inquisitive Kirks and Buchanans from the source of the deadly poison, and exaggerated the potency of the pendulous fruit when they discovered it, acquaintance with strophanthus is possessed by widely-scattered tribes, and they all have a wholesome hatred of it in all other respects than that of an arrow-poison. As a medicine they have never dreamed of using it, and they put us down as madmen for so doing That is where we are superior to the noble savage; but happy the men who need not cardiac-controllers of the Westinghouse-brake type, and whose posology does not go into fractions of a grain. They use plain powdered strophanthusseeds mixed with a sticky plant-juice to smear arrows, and with the use of the arrows their respect for "the medicine" stops.

There are many excellent features about Dr. Fraser's monograph deserving of notice. Although the investigation was one of purely pharmacological purport, and by a pharmacologist, the botany, chemistry and pharmacy of strophanthus are very fully described. Moreover, he has had the fairness, now too rare amongst those engaged in pharmaceutical research, to mention the names of those who have worked on the same subject, and even of those, such as Messrs. Burroughs & Wellcome and Mr. Thomas Christy, who have touched it from the commercial side. Many details are included which one does not commonly find in pharmacognostic papers. Thus measurements and weights are given of skinned and unskinned pods and their contents.

The figures in regard to the last—i.e., the seeds and their comose appendages—are particularly interesting. Seeds from 16-inch pods are practically double the weight of those from 8 and 10 inch pods, and they vary in weight according to their position in the pod, as the following figures show:—

			Top	Middle	Base
0.2-11.		_	Grain 0:31	Grain 0:30	Grain 0:20
8-inch pods 10 ,, ,, 16 ,, ,,	•• ••		0·48 0·67	0.41 0.84	0.35 0.45

These are the mean of two weighings from the respective positions, but some, especially those from the top of the longest, showed a wide variation – e.g., 0.45 and 0.88 grain in that case. The extreme limits of weight noticed were 0.15 grain and 0.88 grain. The measurements of the comose appendages show that the longest occur at the middle of each pod, and the shortest are more frequently at the base than at the top. The extremes observed were 1.99 inch and 5.93 inches, the former being from the base of an 8-inch pod, and the latter from the middle of a 16-inch. Occasionally smaller and larger appendages have been noticed—as, for instance, 1.59 inch and 6.03 inches—the shortest and longest known—but these are rare.

Another feature about Dr. Fraser's monograph of peculiar value to English pharmacists is the excellent plates exhibiting the microscopic structure of the root, stem, follicle, and seed. Altogether twenty-six preparations by Dr. J. M. Maefarlane (now Professor of Botany in the University of Pennsylvania) are represented, and they form the most complete collection available to English workers. In his communication to the Pharmaceutical Conference at Newcastle Dr. Fraser gave a very full account of the chemistry and pharmacy of strophanthus, so that these need not be referred to at all fully at this stage. Suffice it to say that he finds a comparatively small volume of rectified spirit (say, four times the bulk of the seed) exhausts the oil-free seed of its active principle, strophanthin, and it is only as a matter of doseconvenience that a 1-in-20 tincture has been adopted. We may also recall the fact that simple contact with very dilute mineral acids suffices to decompose strophanthin, and such acids as acetic and oxalic also decompose it on boiling. This fact is apt to be overlooked by prescribers and dispensers, and doubtless many of the failures with strophanthus are due to the administration of the tincture in acid mixtures, or in mixtures which become acid. It should be administered alone. One good advantage of the delicacy of the active principle is that it may be used to test the reliability of the tincture in the following manner. Evaporate a few minims of it, and dissolve the soft residue in a drop of water placed on a microscope-slide provided with a shallow cup. Now add a drop of 2-per-cent. sulphuric acid and apply the coverslide. In one or two days a large number of small and translucent granular bodies make their appearance, and in three or four days a beautiful crystallisation of strophanthidin in starlike masses may be observed. The existence of active principle throughout the plant is shown in the following figures :--

	Seeds	contain	abon	t 5·3	per cent.	of strophar	nthin	
	Comose appendages	**	22	0.42	22	impure s	ctrophanthi	n
	Placenta	17	22	0.62	22	,,	53	
	Endocarp	,,	27	0.91	23	,,	>2	
	Pericarp .	"		trace:	5 ,,	23	23	
	Leaves	٠,		99	79	23	27	
	Branch bark	**		none				
	Stem bark	**		29				
-	Root	**	::	0.73	29	99	25	

The strophanthin here referred to was not absolutely pure,

but was sufficiently purified to make these figures which we quote reliable for comparison.

In every respect the most valuable part of Dr. Fraser's monograph is that dealing with the pharmacology, and upon this part we cannot enter in detail. Suffice it to say that there is a record here of over 170 experiments, mainly on frogs and rabbits. These show that the fixed oil of the seed (present to the extent of 35 per cent., and varying in density -0.9267, 0.954, and 0.975 are recorded by the author) is physiologically inert, and that the alcoholic extract of the seeds and, therefore, strophanthin, act upon the heart and skeletal muscles, while the respiration and several parts of the cerebro-spinal nervous system are also directly affected, but not the brain. It is unnecessary for us to comment upon this section of the research, which is purely in the physician's province, but as one of the first journals of pharmacy to call attention to Dr. Fraser's investigation we have thought that these comments upon his complete and not commonly available record are not out of place now that strophanthus is passing into history as a drug of established

A PATENT MEDICINE.

It will be remembered that Messrs, Kay Brothers, of Stockport, have made a public announcement that their essence of linseed and chloro-linseed lozenges, although containing certain scheduled poisons, may be sold by unregistered persons, on the ground that they have been actually patented, and come, therefore, within the statutory exemption. They announce on the wrapper of each bottle, indeed, that as it "follows the patent No. 1975, and being within the exception contained in section 16 of the Pharmacy Act, 1868, its sale is free from restriction." Elsewhere on the same wrapper it is declared to contain a preparation of chloroform and morphine. The British Medical Journal of last week, referring to Messrs. Kay's advertisement, stated that, the specification having been examined, it had been found that while the formula for the lozenges therein set out does include both morphine and chloroform, the essence patented does not contain any scheduled poison. We have looked up the specification ourselves. The patent was granted in 1873, and, except that one of the ingredients is declared to be "ipecacuanha or antimonii tartras, or both, in wine in the approved officinal proportions," we find the B. M. J. statement to be correct that no scheduled poison is mentioned. It is quite clear that, as the compound containing chloroform and morphine is not the preparation patented, it cannot claim to come within the exemption referred to, and we trust this apparent defiance of the Act will have the prompt attention of the Pharmaceutical Council. We shall make it our business to go more fully into this question of patented medicines, but expect meanwhile that Messrs. Kay Brothers will think fit to offer some explanation.

THE VOLE PLAGUE.

The Parliamentary Committee which have been inquiring about the means for putting down the plague of field-mice in the Border Counties of Scotland consider Professor Loeffler's mouse-typhus inoculation method to be a failure. When used in a fresh state the bacilliferous fluid is effective, though somewhat dilatory. But there are three objections which render it almost worthless except for employment in houses, gardens, enclosed fields, or other limited areas:

(1) It is very expensive; the virus supplied to the Greek Government was paid for at the rate of about 4s. a tube, containing enough, when dissolved, to treat about 2 Imperial acres, a cost which in many instances would exceed the rent of the Scottish hill-pasture. To this must be added the price

of bread used in distributing the virus. Thus, to deal effectually with a hill-farm of, say, 6,000 acres, would entail an expenditure of from 700l. to 1,000l., making the remedy more costly than the evil. (2) Mouse typhus is not contagious; it can only be communicated to those animals that will swallow some of the virus, (3) The fluid loses its value in about eight days after preparation. The remedy which has been found most effectual in Thessaly is injection of bisulphide of carbon into the burrows. This, however, is a more expensive process than the other. The conclusion that the Committee have come to is that farmers should not kill owls and other living exterminators of the field-mouse.

CHEMISTS AND LIQUORICE.

The decisions of the Liverpool and of the North London magistrates in regard to liquorice, reported in this and our previous issues, should be gratifying to the professional pride of chemists and druggists, but may become somewhat embarrassing to them from a trade point of view. The magisterial view appears to be that when the small boy asks the confectioner for liquorice he wants a sweetmeat, but that when he submits the same demand to a pharmacist he wants a drug. It follows that the confectioner is justified in supplying a combination of liquorice with 20 to 30 per cent, of starch or other extraneous matter, which may be whatever may suit the vendor's fancy or his pocket. From the druggist, however, an absolutely pure article is expected and required. Chemists and druggists can hardly complain that they should be thus distinguished as the purveyors of specially pure articles; and they will be wise to live up to the reputation thus conferred upon them. But the public, on the other hand, must not complain if the effect of this distinction makes itself felt in the comparative prices charged at the chemists' and at the confectioners' or grocers' shops.

ALARMING SACRIFICE.

A circular of a kind which we may hope will remain unique was circulated last week among the good people of Newcastle-on-Tyne, informing them that as Mr. William Miller, who had been established as a chemist and druggist for upwards of a quarter of a century at Blaydon-on-Tyne, was about to retire, the whole of his "splendid stock of drugs, &c.," would be absolutely sold by retail, at popular prices, at his own shop at Blaydon, and at Mr. Roberts's colonial drug warehouse, 17 Bigg Market, Newcastle-on-Tyne. To show the Novocastrians what bargains were offered them, specimens of the prices were quoted on two foolscap pages. Here, for instance, was "decoction sarsaparilla," which Mr. Miller had been selling at 6d. per oz. reduced to 4d.; ammonia, Mr. Miller's price 1s. per lb., down to 9d.; liquid iron or steel drops cut down recklessly from 4d. to 3d. per oz. Some hundred other medicines are announced in the same way. All through, however, the sacrifice in prices strikes us as less serious than the sacrifice of dignity, which, from a commercial point of view even. secms to us to be worth maintaining.

THE FINAL "E."

The American Association for the Advancement of Science is endeavouring to reform chemical spelling, and has begun by lopping off the final "e" from many words in which it is a useful distinction—alkaloids, for example. If we are to follow them we must write "chlorin," "amid," "anilid," "oxid," "hydrid," and so on; but we must always try to remember "alkaline," for no other style for it will be correct. Then there are "sulfur," "sulfid," and "sulfit," but "sulfate" and "phosphorus" must not be confused with these eccentricities. It does not appear to be a happy arrangement at all yet some influential chemists are taking it up.

TINCTURE OF LOBELIA.

BEING THE CONCLUDING PAPER OF A SERIES DEALING WITH THE SOLVENT ACTION OF ALCOHOL OF DIFFERENT DEGREES OF STRENGTH ON SOME OF THE DRUGS USED IN MAKING PHARMACOPŒIAL TINCTURES.

By E. H. FARR and R. WRIGHT, Pharmaceutical Chemists.

The herb Lobelia inflata (so-called Indian tobacco) has for upwards of a century been employed in the United States as a domestic remedy for asthma and other complaints, and was first introduced into public practice by the noted empiric Samuel Johnson about the year 1800.

The chief constituents of the drug are an alkaloid, a volatile oil, gum, resin, vegetable wax, and mineral salts. The seeds also contain from 20 to 30 per cent. of fixed oil.

The activity of the drug has been traced by several investigators to the alkaloid lobeline.

By early workers on the subject this was stated to be a yellowish oily fluid, having an aromatic odour and a very acrid taste. It was also said to be somewhat volatile, and to be entirely decomposed at the temperature of boiling water,

similar to those which have been published in connection with previous notes.

The results obtained showed the desirability of combining a process of extraction by means of chloroform with one of subsequent purification with absolute ether.

The following is a detailed statement of the process adopted:-"Fifty cubic centimetres of the tincture are introduced into a porcelain dish, and acidified with 5 drops of 33-per-cent, acetic acid, 20 c.c. or 30 c.c. distilled water being subsequently added. The liquid is then evaporated over a water-bath (the water in the bath being kept just at boilingpoint) until the volume is reduced to 25 c.c. or 30 c.c. The extract is filtered through cotton wool into a separator, the dish and filter rinsed with a little acidulated water, and the rinsings added to the contents of the separator. Ammonia is then added in distinct excess, and the alkaloid extracted by agitation—first with 10 c.c., and then with two successive 5 c.c. chloroform. The mixed chloroformic solutions are evaporated over a water-bath at a gentle heat, until the chloroform has been driven off; the residue treated, first with 10 c.c. and then 5 c.c. 1-per-cent. hydrochloric acid, and the acid alkaloidal solutions filtered into a separator. The liquid is then rendered alkaline by means of ammonia, and the alkaloid taken out by shaking, first with 15 c.c. and then

Table I.

Showing Quantitative Results of Estimation of Samples of Tincture of Lobelia.

1	Amount o	f Alkaloid in grai	nmes from 100 c.	c. Tincture	Amount of Extractive in grammes from 100 c.c. Tineture				
Series	80-per-cent. Tineture	70-per-cent. Tincture	60-per-cent. Tincture	50-per-cent. Tincture	80-per-cent. Tincture	70-per-cent. Tincture	60-per-cent. Tincture	50-per-cent. Tiucture	
1 2 3 4 5 6 7	*042 *038 *026 *026 *046 *043 *043	*044 *040 *026 *028 *044 *043 *042	044 042 028 028 044 044	042 042 027 028 040 044	2:04 2:26 1:90 1:64 1:76 1:94	2:36 2:58 2:16 1:76 2:00 2:10 1:80	2:48 2:60 2:17 1:84 2:34 2:12 2:32	2·66 2·76 2·20 1·96 2·36 2·12 2·42	
Average	∙037	-038	·038	•038	1.85	2·11	2:27	2:35	

although mnaffected by boiling when in combination with an acid.

The researches of J. U. and C. G. Lloyd (THE CHEMIST AND DRUGGIST, xxx. 391) conclusively proved that the supposed liquid alkaloid was really a mixture of the true alkaloid lobeline with a stearopten (at first supposed to be a second alkaloid) and volatile oil.

They obtained lobeline in the form of a colourless, odourless, amorphous substance, unaffected by exposure to air, slightly soluble in water, and readily soluble in alcohol, chloroform, ether, benzol, and carbon bisulphide.

The fact that lobeline is a non-volatile base, and that it is the sole active constituent of the drug, has been substantiated by Dreser ("Year-book of Phar." 1890, page 168). For the purpose of our investigation seven specimens of lobelia were obtained, and after being reduced to No. 40 powder, a series of tinctures was made from each, by the B.P. process, with menstrua of 80, 70, 60, 50 and 40 percent strength (by volume).

It was remarked that some of the 70 and 80 per cent. tinctures threw down a crystalline deposit on standing for a few days. Some of the crystals were collected and examined, and were found to consist of an organic salt of calcium. Most of the 40-per-cent. tinctures became cloudy on standing, and deposited somewhat freely.

Before deciding upon the process to be adopted for the estimation of the alkaloid in the tinetures, a few preliminary experiments were tried or a standard tineture by processes

with two successive 5 c.c. absolute ether, s.g. '717. Finally, the ethereal solutions are run off into a platinum dish, the ether allowed to evaporate in a current of air, the alkaloid dried by exposure in a hot-air oven at 100° for one hour, and the dish with its contents transferred to a desiccator, the weight being taken on cooling."

As bearing upon the question of the volatility or otherwise of the lobelia alkaloid, we may say that we have repeatedly exposed the alkaloidal residue obtained by the above process for several hours at a temperature of 100° without a loss in weight of more than '001 gramme. The results of the estimations are given in Table 1.

As yielded by the above process the alkaloid presents the appearance of a perfectly colourless transparent mass, without odour, but possessing a very acrid taste. It is neither volatile nor hygroscopic. When exposed for some time at a temperature of 100°, it darkens in colour. It is slightly soluble in water, more so in dilute mineral acids, but most readily in acetic acid. The acid solution yields characteristic precipitates, with all the recognised alkaloidal reagents; those given by gold chloride and mercuric chloride being dissolved on boiling the liquid containing the precipitate, and are reprecipitated in a crystalline form as the liquid cools.

The percentage of extractive was ascertained by evaporating 10 c.c. of the tincture over a water-bath, heating the residue at 100° until it ceased to lose weight, and multiplying the result by 10.

All the 40 and 50 per cent. tinctures gave a gelatinous precipitate when mixed with an excess of 90-per-cent. alcohol, showing the presence of mucilaginous matter.

The dilution of the stronger tinctures with water invariably caused the separation of chlorophyll, and resinous and fatty matters, although the proportion of these substances thrown out by the tinctures prepared from different samples of the drug varied very considerably.

On reference to Table I. it will be seen that the yield of alkaloid by each of the tinctures in the same series is practically identical, and there is little doubt but that the complete exhaustion of this drug can be effected equally well either by a strong or weak alcoholic menstruum.

In accordance with the principles which have guided us in the case of other herbaceous tinctures, we recommend that a 50-per-cent. menstruum should in future be adopted for the preparation of tincture of lobelia.

In order to ascertain the effect of the employment of different processes upon the strength of tinctures made from the same drug two specimens were taken, and a series of tinctures made from each, by the following processes:—

I. Simple Maceration.—One ounce of the drug in No. 40 powder was macerated for seven days in 8 fluid oz. menstruum, the mixture being occasionally shaken. The liquid

engraving. Shaving at any time is a difficult task for some, especially for the nervous and those on board ship. We have given the shaver a fair trial, and we confess that we were disappointed with it at first, as we found that it either did not shave at all, or embellished the skin with cuts. But



now we cannot get a cut registered, and the razor does its work beautifully, leaving the skin as soft as a baby's. In the illustration the razor is represented too far down; it should be pushed up so that the comb-like protector touches the skin first. Then shaving becomes a pleasure. The instrument is finished in electroplate, folds up into small compass, and is packed in a neat ivorine case the size of a vesta-box. It sells at half-a-crown.

Table II.

Showing Results of Experiments on Process for making Tineture.

No.		Alkaloid	per cent.		Extract per cent.				
	Simple Maceration	Double Maceration	Macero- Percolation	Continuous Percolation	Simple Maceration	Double Maceration	Macero- Percolation	Continuous Percolation	
I. II.	*026 *018	*024 *018	*028 *018	*030 *022	1·80 1·36	1·94 1·38	1·92 1·36	2·04 1·60	

portion was then strained off, the marc pressed, the liquids mixed, and the tincture filtered.

II. Double Maceration.—One ounce of the drug in No. 40 powder was macerated in 4 fluid oz. menstruum for forty-eight hours, with occasional agitation. The liquid portion was then expressed, and the marc again macerated for twenty-four hours in a sufficiency of menstruum to make the volume of finished tincture up to 8 fluid oz. The liquid portion was then separated by expression, the liquids mixed, and, if necessary, made up to 8 fluid oz. with menstruum, and the tincture filtered.

III. Macero-percolation.—The B.P. process.

IV. Continuous Percolation.—One ounce of the drug in No. 40 powder was moistened with menstruum and packed in a conical percolator; more menstruum was then added, and percolation allowed to proceed continuously, but slowly, until 8 fluid oz. of percolate had been collected.

The results of the estimation of these tinctures are given in Table II. The differences in the percentage of alkaloid and extract yielded by the tinctures in the same series are not very considerable, but serve to emphasise what has been stated in previous notes respecting the superiority of the process of continuous percolation over other processes.

Notes of Noveltres

THE "MIDGET" SHAVER.

Messrs. R. Hovenden & Sons, Berners Street, W., have introduced a cheap safety-shaver under the above name, which is represented ready for action in the accompanying

"THYROIDIN" PREPARATIONS.

"Thyroidin" is the name which Messrs. Allen & Hanburys have given to the purified "extractive matter" of the thyroid body—i.e., it is the thyroid minus blood, fat, and inert tissue. It is a light-grey powder, with an odour resembling diastase, and it partially dissolves in water, yielding on filtration a pale straw-coloured, and somewhat viscous solution, which on heating remains unchanged, and on the addition of alcohol separates a flocky precipitate. We presume that the viscosity is due to the presence of the colloidal substance peculiar to the thyroid. Thirty-two grains of this powder represents a thyroid gland. From it are prepared tabella, each of which weighs 4 grains, and cachets of the same strength. Another preparation is "Thyroidin Elizir," which is made from the fresh glands without heat. This is an agreeable preparation of good flavour and full activity. Each ounce of it is equal to a thyroid gland. All these preparations are intended for administration by the mouth. The makers introduced them on February 25, and they state that "the extended experience and observation which they have had since, and the continued experiments they have carried on, have led to unexpected results," which enable them to offer the preparations with entire confidence. They are, indeed, typical specimens of elegant pharmacy in its latest developments.

AN EXAMINATION of Angostura bark by Beckurts and Nehring (Arch. der Pharm.) has resulted in the identification of four alkaloids—galipine, galipidine, cusparine, and cusparidine—besides several other amorphous bases not yet determined. Galipine and cusparine have been isolated before by Koerner and Boehringer.

MR. BRAXTON HICKS, CORONER.

No one is better entitled to the credit of bringing into effective operation the latent powers of the Pharmacy Act than Mr. Athelstan Braxton Hicks, the well-known Surrey Coroner. We claim for ourselves in a general way a pretty large share of whatever glory may be available for this service; but in regard to two very prominent particular instances, it is right that the trade should recognise the very important efforts of Mr. Braxton Hicks. The case of the Pharmaceutical Society v. Wheeldon was the direct outcome of Mr. Hicks's representations. An unqualified assistant to a qualified chemist had sold a packet of Battle's Verminkiller to a domestic servant, who poisoned herself therewith. The inquest on the girl was held before Mr. Braxton Hicks, who considered that a breach of the Pharmacy Act had been committed. He directed the attention of the Pharmaceutical Council to the case, and they somewhat reluctantly instituted proceedings against the unqualified assistant. The County Court Judge endorsed Mr. Braxton Hicks's view of

the law; but it was extremely desirable that a judgment to the same effect should be registered in the High Court. This was secured principally by our efforts. The Pharmaceutical Society, which benefited so largely by the result, refused even to agree that each side should pay its own costs.

Mr. Braxton Hicks followed up this action by bringing under the notice of the Attorney-General the sale of a cough-mixture containing a scheduled poison, and which mixture was not labelled as required by the Act. A child had died through taking a quantity of this mixture, and the statement was made before Mr. Hicks, as Coroner, that if the parents had known it contained poison, they would have taken more precaution in hiding it. From this resulted the "Matthias" case, tried before the Lord Mayor, in 1890, on a prosecution by the Public Prosecutor.

The defendant in the case just mentioned pleaded guilty, and consequently the patent-medicine exemption was not formally raised, as probably Mr. Hicks hoped, in argument. But we happen to know that immediately after the decision at the Mansion House, the Coroner pressed the matter on the Public Prosecutor's attention. On his representations purchases of poisonous stamped medicines were made from several large grocers and proprietors of medicines, with a view to further action, and among the firms who had the honour of being selected as vendors were Messrs. Piper & Co., of Pimlico, who subsequently became the defendants in the case which recently came before the High Court. We do not by any means underestimate the persistent and energetic influence exercised by Mr. Ernest Hart in forcing the Treasury and the Pharmaceutical Council to a fighting-point; but it is fair that due credit for his pioneer work should be given to Mr. Braxton Hicks.

Mr. Braxton Hicks is a barrister, and was called to the bar in 1875. He is still on the youthful side of forty, though his name has been familiar to the public as a Deputy-Coroner and Coroner for the past ten years. He was appointed Deputy-Coroner for Kingston district and also for the Croydon district of Surrey in 1883, and succeeded Mr. Hull as Coroner for the Kingston district in 1885. He has been in the course of these ten years also Deputy-Coroner for the City, Westminster, Southwark, Western London, and Middlesex; but last year the London County Council added the northern half of Lambeth to his Surrey district, so that Mr. Hicks now holds no Deputy-Coronership.

Among the particularly prominent inquests over which Mr. Hicks has presided may be mentioned the Bartlett poisoning-case in 1886, the Tooting baby-farming case in 1888, the fireman Jacobs's case (killed at the fire at Messrs. Burroughs, Wellcome & Co.'s Wandsworth factory in 1889), and more recently the case of Matilda Clover, for whose murder Thomas Neill Cream was executed last November.

Mr. Hicks's outside energies have been by no means limited to action in regard to the sale of poisons. He has taken an

active part in correspondence and other work in reference to baby-farming, has written a pamphlet entitled "Hints to Medical Men Concerning the Granting of Certificates of Death." Mr. Hicks, although, as we have said, a lawyer by training, has associations with medicine which ensure that his sympathies are with its practitioners. He is the son of Dr. J. Braxton Hicks, F.R.S., the well-known obstetrician; himself studied medical jurisprudence at Guy's Hospital for four years, and also has shown himself especially alive to the illegality of unqualified practitioners assuming the titles and public duties belonging to qualified men only. It may also be mentioned that he married the only daughter of a popular surgeon of Belgravia.

Mr. Hicks has established a poor-box and a clothes-box in association with his Coronership, and for these insti-

tutions he is always ready to receive contributions at 20 Lupus Street, S.W. Subscribers may be confident that he has plenty of opportunity of distributing their bounty judiciously and usefully.



MEDICINE AND PHARMACY IN ALSACE-LORRAINE.—The Apotheker Zeitung calls attention to the decay of the French element among the medical men and pharmacists in the "Reichsland," as shown by the last census. There are now, it appears, in the two lost French provinces, after twenty-one years of German rule, only 105 medical men with French qualifications, against 513 with German diplomas; 23 French-certificated veterinary surgeons and 98 German ones; and only 24 "pharmaciens," as contrasted with 205 "apothekers." As the present holders die off, so, of course, their places are taken by those who hold the German diploma, which is now the only recognised one for post-annexation men.

Bankruptey Reports.

Anstruther, N.B.

This debtor was examined before Sheriff Henderson at Cupar Fife last week. In reply to Mr. J. E. Grosset, the petitioning creditor, debtor stated that sine April, 1891, he had been the sole partner of the chemist's business, which had been established six and a half years ago by some relatives of his. They wanted to give it up. He was manager, and the business was offered to him. He was to pay the liabilities, amounting to 109\(leftarrow\). He had no capital, and was to pay by monthly instalments of 1\(leftarrow\) to account. There was very little business done from the fact that the capital was too small. From the first he had found himself in difficulties from want of capital. His state of affairs showed assets 170\(leftarrow\). 7s. 6d., but this was excessive. The stock was valued 82\(leftarrow\). 3s. The fittings cost 50\(leftarrow\). 7s. 6d., six years ago. His total liabilities amounted to 204\(leftarrow\). He was in arrear 1\(leftarrow\). with his rent. He had got 30\(leftarrow\). On loan from the Rev. Mr. M'Alpine two years ago. The bankrupt, in answer to Mr. Davidson, stated that he had no book debts. The statutory oath was administered. Mr. A. C. M'Intosh, solicitor, was appointed trustee.

Re SAMUEL T. JOHNSTONE, Chemist and Druggist, Ballina.

THE examination of witnesses in this matter took place last week at the Dublin Bankruptcy Court, before Judge Miller. Edward J. Hughes, sheriff's officer, county Mayo, stated that on May 20 last he made a seizure on the bankrupt's premises in respect of a debt of over 100%. The sale took place on February 22, and the total amount realised was 35%, 8%, 3%. He sold the property at the best prices he could obtain. He would not believe anyone who said that the stock was worth 100% or 120%. It consisted largely of empty bottles. Philip Hoffe, of Ballina, stated that it was on his valuation one of the bidders offered 30% for the stock, but Joseph Johnstone said he believed the stock-in-trade at the time of sale was worth about 100%. At this stage the sitting was adjourned.

Re James Kimberley Twinberrow, 80 Wigmore Street, and 71 Westbourne Grove, W., Chemist and Druggist.

This debtor attended before Mr. Registrar Linklater at the London Bankruptcy Court on Tuesday for public examination. His accounts showed total liabilities 31,852*l*. 7s. 6d., and assets valued at sufficient to provide a surplus of 10,760*l* 10s. 4d.

In reply to Mr. C. A. Pope, Assistant-Receiver, he stated that he had resided for the last four months at Ennerdale, Rydal Road, Streatham, and formerly at Priory Road, West Hampstead. For some years he was in partnership with his father, and they carried on business as chemists and druggists at Wigmore Street and Westbourne Grove. had no fixed allowance, and he did not remember his share in the business at that time. His father died in 1867, but some time before that event he had assigned his interest to witness, subject to an annuity of 2001. to his (debtor's) mother, and one of 100% to his sister. The mother died later, and both annuities then ceased under the terms of the assignment. After the father's death, witness continued to carry on both businesses, and was still doing so. In addition to being a chemist and druggist, he had practised as a solicitor, having been admitted in 1862. No bills of costs were now owing to him in respect of that practice. The businesses proved fairly profitable, and in 1877 he had saved a considerable sum of money, which was invested in Egyptian stock. In that year he was advised to sell out the stock and, unpersuaded, to purchase some freehold land at West Hampstead, with a view to building thereon. With that idea he entered into an arrangement with Mr. Mansbridge, a builder, and they erected a large number of houses, some of which had been sold, and the rest mortgaged. His statement of affairs showed a surplus value of 9,1791. 8s. 9d. in those equities of redemption, but that of course was subject to realisation of the properties at the value placed upon them. Witness's household and personal expenditure had amounted to about 700% or 800% per annum. He had kept the usual books in the chemist's business. The cash-book showed receipts and payments, and the ledgers showed the debtors and ereditors of the business. It was true that the books had not been properly posted for some months, so that the statement of affairs could not be verified by the accounts. Further that the books did not show the results of the trading, and no balance-sheets nor profit and loss accounts had been prepared. In the statement of affairs witness valued the goodwill of the two business at 1.300l., which figure he arrived at by taking the profits of each business for three years at 2001. per annum, and adding a round sum of 100%. The lease of the Wigmore Street house was mortgaged for 1,700l. to the first mortgagee, and there was a second charge to Mr. Lewis, a creditor elaiming 1,552l. The lease of the Westbourne Grove premises was at Mr. Lewis's office, that gentleman being witness's solicitor, but he thought there was no charge upon it. The statement of affairs did not contain any reference to certain shares belonging to witness. There were heavy liabilities upon them, and he did not anticipate they would yield any surplus. In fact he had quite forgotten about them until they were brought to his mind recently. He had no expectations of succeeding to property at any future time, and had disclosed the whole of his assets to the best of his knowledge and belief. Asked to what he attributed his insolvency, the debtor said he did not regard himself even now as being insolvent. It was true that he had been pressed in money matters for some time past, but that was because his capital was locked up in the house property at West Hampstead. The mortgagee had on three or four occasions sued him for the interest, and other creditors had exercised pressure to obtain payment of their claims. Then he fell into a nervous state of health, and perhaps rather foolishly decided to file his petition and get rid of his difficulties. In spite of that action he was of opinion that if further time had been allowed he would have been able to pay all his debts in full. He admitted that he had been obliged to pawn some jewellery belonging to his wife in order to satisfy creditors, and that the pressure had eaused him considerable anxiety for some time past. It was not, however, until he filed his petition that he had any doubt but that he would be able to pay all his debts in full. This was the first time that he had failed or made any arrangement with his creditors.

There was no opposition on the part of creditors, and the examination was concluded.

Re Herbert Potter, Chemist and Druggist, Sutton.

The summary of the debtor's state of affairs shows gross liabilities 2,837/. 2s. 5d., of which is expected to rank 2,787/. 2s. 5d.; assets, nil. The cause of failure is alleged by debtor to be "bad trade, opposition, and heavy costs in divorce proceedings instituted against me in 1891." Official Receiver states that the meeting of creditors has been delayed owing to the difficulty in obtaining the state of affairs. It was not filed until the debtor was informed that an application would be made for his committal. The debtor states he commenced business at High Street, Sutton, in February, 1868, with a capital of 501. of his own, and 250l borrowed from an insurance society. This business was turned into a limited company in February 1891, under the title of "Herbert Potter (Limited)," with a capital of 2,500%. His wife is now stated to be carrying on the business in her maiden name (Amy Fuller), and the debtor is acting as her manager. It is stated that she bought the stock-intrade, fixtures, &c., in April 1892, under an execution levied by the Sheriff of Surrey, and that she was married to the debtor in the following month. The debtor states that he first knew of his insolvency in 1891, but contracted his present debts in the hope that his business would improve. No cash-book or bought-ledger has been kept. The ereditors shown as partly secured hold a policy on the debtor's life, the lease of 31 High Street, Sutton, and a promissory

The statutory meeting of the creditors under this failure was held on Wednesday afternoon, at the offices of the Official Receiver, Railway Approach, London Bridge, S.E., under the presidency of Mr. Britton, Assistant Official Receiver.

The debtor's solicitor, Mr. Thomas, said he had no offer to make on behalf of his client. In reply to the Chairman as to why debtor formed his business into a company, Mr. Thomas said it was to give security for a creditor ramed Rumilly, a bottle manufacturer, of Forest Gate, E. who was nov scheduled as a creditor for 1,000%. Mr. Rumilly received no cash from the company, but received scrip to the value of his debt. Some of the creditors refused to recognise the company, and Messrs. Barron, Harveys & Co. issued execution against the debtor and the company too; it was also done by a firm of money-lenders, in respect of a debt of 50%. The whole of the stock and effects were sold by the Sheriff to a Mr. McEwan, who carried on the business for a short time, when he resold it to a Miss Fuller, who was now debtor's wife. The effects were sold to her for the price paid for them, less 61. taken whilst Mr. McEwan carried on the business. No cash was raid, however, at the time, but Mr. McEwan sold the business to Miss Follex on credit. The debtor's troubles began as far back as 1882, when a money-lender offered to lend him 300l. on a bill of sale; however, the debtor only received 1001., and gave a bill of sale for 3001. The debtor afterwards took Chancery proceedings, with the result that the money-lender returned the security, and debtor repaid the 1007. He (Mr. Thomas) should think that debtor had been insolvent for ten years at least, and most of his creditors knew how he stood. The Chairman said some of the debts went back as far as 1883, and no doubt they were statute barred. Mr. Thomas stated that when the business was transferred he could have got 300l. or 400l. for it if a Mr. Fox, who held the lease as security for a debt, would have given it up and ranked as an ordinary creditor, but as he declined the matter fell through, and now there are no assets whatever. In reply to the Chairman, Mr. Thomas said that if debtor had not been financed by Mr. Rumilly he would have filed his petition long ago. Mr. Rumilly had would have filed his petition long ago. Mr. Rumilly had practically kept him afloat for years. The validity of the transfer of the business to Miss Fuller had been tested by a creditor in the Epsom County Court and in the High Court, and in both instances it was upheld. The Chairman said there was nothing to do but to leave the matter in the hands of the Official Receiver for summary administration.

Gazette.

PARTNERSHIP DISSOLVED.

Pitt, George, Pitt, George William, and Walker, A., under the style of George Pitt & Co., Leeds, glue manufacturers.

THE BANKRUPTCY ACTS, 1883 AND 1890. RECEIVING ORDER.

Eyre, George Frederick, Stockport and Mauchester, and Alderley Edge, Cheshire, late of Didsbury, patent lint manufacturer, until recently trading in copartnership with one Thomas Birch Griffiths as the Manchester Patent Lint Company.

ADJUDICATION.

Schonstadt, Moritz Henry (described in the receiving order as Moritz H. Schonstadt, and trading as Moritz H. Schonstadt, also as the National Asbestos and Indiarubber Company), Farringdon Road, E.C., and Snow Hill, Birmingham, indiarubber and asbestos merchant.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

DOTT—GRAY.—In Duddingston Parish Church, Midlothian, on March 25, by the Rev. J. A. Hunter Paton, Minister of Duddingston, David Brown Dott, F.R.S.E., pharmaceutical chemist, to Jessie Dickson, daughter of George Gray, 1 Warrender Park Crescent, Edinburgh.

DEED OF ARRANGEMENT.

Parrott, Thomas William, 22 Essex Street, Duncan Road, London Fields, Hackney, drysalter and sauce manufacturer. Trustees, Gilbert Bartholomew, Fairfield Works, Bow, E. (manufacturer), and another. Dated, March 9; filed, March 16. Unsecured liabilities, 1,252l. 4s. 7d.; estimated net assets, 1,048l. Creditors fully secured, 370l. The following are scheduled as creditors:—

			£	5.	d.
Alsing & Co. (Limited), London			95	4	6.
Avery & Sons, London			20		
Barringer & Co., Mansfield	.,		25	12	1
Blackmeer, N., London			16	9	8
Briant & Atkins, London			31	11	7
Bryant & May (Limited), London			124		4
Brodie, J., London			10	12	5
Canadian Company, London			16		2.
Canning Town Glass Company, London			36	3	9
Carr & Son, London		,	16	4	2
Daniels, B., London			63	14	0.
Davis, R., London			26	7	5,
Day & Martin, London			73	16	8
Gas Light & Coke Company, London			10	3	5
Hudson, R. S., London			49	18	0
Isaacs & Sons, London			18	15	0
Keating, T., London			37	5	
Krenger & Co., London			30	17	6
Manby & Co., London .,			23	18	10
May & Co., London			24	13	11′
May, H., & Co., London			27	18	2
Mead, T. S., London			14	2	5
Morgan, E., & Co., London			11	9	01
Nixey, W. G., London			60	6	4
Pearce, Duff & Co., London			12	18	0
Pears, A. & F. (Limited)			63	0	0
Rates			11	9	8
Ripley, R., Liverpool			23	17	8
Smith, T., & Co., London			12	12	11
Starck, A., London			49	7	6
Taylor, A., London			10	6	,5
Temperance Building Society, London			370	0	0
West & Co., London			15	2.	6-
Zetterquist, —, London			11	3	8

Hew Company.

James Epps & Co. (Limited).—Capital 200,000%, in 5% shares. Objects: To acquire the businesses now carried on by Mr. James Epps, under the styles of James Epps & Co. and Franklin Epps & Co., and to carry on business as manufacturers of and dealers in cocoa and chocolate, and as homeopathic chemists, chemists, druggists, confectioners, drysalters, &c. The first subscribers (who take one share each) are:—James Epps, Holland Street, S.E., manufacturing chemist; H. Epps, Holland Street, S.E., manufacturing chemist; James Epps, jun., Holland Street, S.E., manufacturing chemist; E. D. Linton, 20 Berwyn Road, Herne Hill, S.E., clerk; J. Hummel, 88 Solcott Road, Wandsworth Common, clerk; G. Starling, 17 Fleming Road, Lorrimore Square, S.E., clerk; and J. W. Woodley, 21 Drylands Road, Crouch End, N., clerk. There shall not be more than seven nor less than three directors, and the first are James Epps, H. Epps, and James Epps, jun. Qualification, 500%. Remuncration, 100% each per annum.

AËRATED-WATER DRINKS are to be sold on a big scale at the Chicago Exhibition, as we have previously reported. The consumption of syrups for these drinks will be at the rate of 5,000 gallons daily.

MESSRS. ARTHUR & Co. have commenced the manufacture of medicinal specialities, which are intended for prescription by medical men, and they have appointed Mr. Elton, of Endsleigh Gardens, N.W., their distributing agent. When chemists read in prescriptions such items as "Liquale chlor, c. ferro (Arthur)" they will know from this note what is meant.

Medical Gleanings.

LARGE DOSES OF ARSENIC.

ACCORDING to Dr. Seymour Taylor, 30-minim doses of Fowler's solution are tolerated and are beneficial in leucocythæmia.

COCAINE CARBOLATE

is strongly recommended by Dr. D. B. Kyle (*Therap. Gazette*) as the most useful salt to use for local anæsthesia, as it does not produce the grave symptoms which sometimes follow the use of cocaine hydrochlorate. Its solutions keep well, and it has been used for some time with invariably good results.

DERMATOL IN DIARRHŒA.

WE have mentioned more than once that dermatol (bismuth subgallate) is a good thing for diarrhea. Experience appears to add weight to the testimony hitherto published. Dr. John W. Martin recently described to the Sheffield Medico-Chirurgical Society a case of very severe diarrhea in a woman of 31, from whom the motions came away unconsciously. She was in the Jessop Hospital and in a grave condition. All astringents had been tried and failed, when Dr. Martin ordered her to have $\frac{1}{2}$ -dram doses of dermatol every four hours. In twenty-four hours the diarrhea had ceased, and by two days the ordinary motions were being passed.

Arsenic as a Prophylactic.

MR. C. F. BRYAN, M.R.C.S., of Leicester, has a very high opinion of the value of arsenic as a prophylactic. He told a local medical society all about it recently. He started from the Styrian idea that arsenic is good for warding off disease as well as fatigue, and his own experience (extending over ten years) included scarlet fever, diphtheria, and influenza. The prescription which he generally used was: Liq. arsenicalis, 24 minims; syrup. aurantii, ½ oz.; aqua to 3 oz. Two teaspoonfuls to be taken three times a day after meals, and after the first week twice a day. In all cases he had satisfactory results, and he recommends the prophylactic to be given for a few days before serious surgical operations.

ACIDITY OF THE STOMACH.

DR. LOCKHART GILLESPIE, of Edinburgh, has recently been experimenting chemically on the contents of the human stomach in a state of health, and has arrived at some rather interesting conclusions. He has found that there is a close affinity between proteids and hydrochloric acid, but whether they combine to form a chemical compound or not he could not say. At all events, they combine in some way, and whenever food enters the viscus hydrochloric acid is secreted by the peptic glands, but the time of the appearance of the acid varies with the composition of the food. However, practically the whole of the acid secreted at first combines with the proteids, so that the contents of the stomach are not very acid, and for that reason the amylolytic action of the saliva goes on for some time in the stomach itself. Hydrochloric acid has no affinity for carbohydrates. Heartburn cannot be caused by hydrochloric acids combined with proteids. In laying down some rules for guidance in treatment founded on the results of his observations, Dr. Gillespie deprecated the common practice of simply treating the local chemical disturbance without thought of the wider issues which are often present. The pain caused by acidity can be soothed better by proteids or by dilution of the stomach-contents with water than by the administration of alkalies.

MEDICINAL SOAPS IN POWDER FORM.

DR. G. J. EICHHOFF, who is a well-known authority on medicinal soaps, recommends, in a recent issue of the *Therapeut. Monatshefte*, the use of such soaps in powder form as being both handier and more economical than the tablet shapes and permitting the administration of the medicament in exact doses. The prescribed quantity of the soap-powder should be taken in the hand, slightly moistened, and rubbed into a lather between the hands. The most effective action is obtained by allowing the lather to dry nto the skin under a waterproof cover. For a salicylic

soap, 5 per cent. of salicylic acid and 95 per cent. of soap-powder should be made into a neutral or superfatted powder. An alkaline form—is not desirable, as in it the acid combines with the excess of soda or potash. If necessary, 5 per cent. of resorcin or sulphur may be added. A suitable balsam-of-Peru soap is obtained by incorporating 10 per cent. of the drug with 90 per cent. of soap-powder, and adding, if necessary, 2 per cent. of camphor and 5 per cent. of sulphur. The other medicinal soaps recommended by Dr. Eichhoff comprise 2-per-cent. admixtures of aristol, sulphate of quinine, europhen, iodine, sublimate (with 1 per cent. chloride of sodium), and thymol; 3 per cent. of benzoin, iodoform, and iodol; 5 per cent. of borax, camphor, menthol, naphthalin, β -naphthol, naphthol and sulphur, pyrogallol, salol, tannic acid, and thiol; 10 per cent. of chloride of lime, chrysarobin, or sulphur; and 20 per cent. of pumice.

PHOSPHORUS ANTIDOTES.

It is always a matter of difficulty for doctors to treat cases of phosphorus-poisoning. The favourite antidote, according to text-books, is French oil of turpentine; but where is that to be obtained, or who has ever seen it outside of France? We are, therefore, pleased to notice that Dr. E. Q. Thornton, of Jefferson Medical College, has taken the matter up, and puts the French oil out of court (*Therap. Gazette*): it is not a practical antidote. Dr. Thornton has also tried potassium permanganate and copper sulphate, experimenting on dogs to which he administered phosphorised oil in poisonous doses. The permanganate was the more effective, 4 oz. of B.P. solution sufficing to neutralise the effects of 2 grs. of phosphorus. Solutions of phosphorus and potassium permanganate, when shaken together, precipitate a black oxide of manganese, phosphoric acid and phosphates being found in solution. A few drops of dilute hydrochloric acid hastens this change, chloride of manganese being formed. In giving it for phosphorus poison the permanganate must be used before the poison has become absorbed and must be well diluted (.5 to 1 per cent. solution), or vomiting will result before the chemical reaction has taken place in the stomach. It must be given in excess, as considerable permanganate is reduced by the organic substances in the stomach. Thornton found hydrogen peroxide to be too slow to act as an antidote. In all cases of phosphorus-poisoning in which sulphate of copper was used death resulted. Although the animal to which sulphate of copper alone was given recovered, decided gastro-entcritis followed.

BORACIC ACID IN SCARLET FEVER.—In his annual report for 1892, in respect of the Newton Abbot rural sanitary district, Mr. Harvey, in discussing the diminished tendency to spread of searlet fever, puts it down, in a measure, to the free use of boracic acid, an ounce or two of which was given to each mother, with instructions for making it into an ointment by means of lard, for use on the skin.

The "Naronic's" Cargo.—The cargo of the freight steamer Naronic, from Liverpool to New York, which is now nearly five weeks overdue, includes the following shipments of drugs and chemicals:—Acid, 56 cases; argols, 50 casks; bleaching powder, 706 casks; capsicum, 1,237 bags; ginger, 151 bags; gum arabic, 32 cases; cottonseed oil, 50 barrels, palm oil, 21 casks; chlorate of potash. 300 kegs; soda ash, 5.248 packages; bicarbonate of soda, 100 casks; caustic soda, 815 drums; soda crystals, 224 barrels.

THE CHARGE OF MURDER AGAINST A CHEMIST.—Robert Spencer, chemist, of West Bromwich, and Sarah Clansey, midwife, were again brought up before the West Bromwich magistrates on Wednesday charged with the murder of Eliza Ann Evans eight years ago. A statement by the female prisoner was read to the effect that the deceased went with the knowledge of Spencer to her house for an illegal operation. This was performed, and the girl died. The body was buried in the garden, but subsequently unearthed, cut in pieces in the cellar, and destroyed by chemicals. Spencer had stated that the girl went to the house of her own free will, and that Clansey had blackmailed him to the extent of over 200%. He declared he was only an accessory after the fact.

PROFESSOR PICTET'S COLD.

SINCE a remote age heat has been brought into subjection by the alchemist to aid him in his studies, and is at the present time the chief form of power used by the chemical-manufacturer to induce the chemical changes required in the claboration of his preparations.

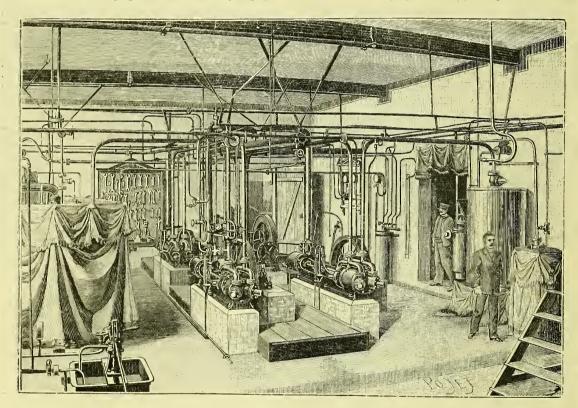
Until recently no one would have thought that the direct reverse, or rather the utter absence, of heat—intense cold would play the same part in producing results for which heat, since time immemorial, has been used in one form or

another.

In pharmaceutical manufactures the greater part of the power employed is in the form of heat, whilst in chemistry the application of heat was thought in many operations to be the only means of separating different volatile ingredients. The tendency in modern times to purify chemical products is more and more developing, and heat is not only employed

and the visitor soon feels at his ease in spite of the low temperature, the production of which is less visible than tangible. The slightest contact of the naked flesh with a cooled portion of the machinery convinces more rapidly than any scientific dissertation. The difference—at least, in burning effect—between extreme cold and extreme heat is none whatever, and the visitor can carry home with him conclusive evidence of this scientific conundrum in the form of a blistered finger, produced by simply touching the cooled machinery.

Nothing is to be seen in the laboratory except an endless quantity of pipes and machinery, the communications and the inner construction of which are the triumphs of the Professor's skill, as only by the perfection of his machinery is he able to produce the effects with such slight loss of energy. The laboratory has altogether a gay appearance, and looks as if some royal personage had been visiting the place and the decorations got up for the occasion had still been left. The drapery which is seen in the picture has, however, a much more realistic purpose—namely, the protection of the



for separating constituents of different boiling-points, but solids in concentrated solutions are evaporated by the application of heat, and thus recrystallised and refined. Above we give a sketch of the laboratory of Professor Pictet, who uses very intense cold as his means of purifying chemicals.

His machinery has the advantage that it costs little or nothing to maintain in working order when the outlay for plant which it involves has once been made, and we have in this instance a near approach to the much-desired, yet unattainable, perpetuum mobile. Chemical-manufacturers would be delighted if their coal-bills could be discarded, or, at any rate, minimised, and yet products be obtained of a purity hitherto impossible.

The laboratory of Professor Pictet is located amid a collection of sheds, which formerly constituted a cattle-market, on the north side of Berlin. The approach to the laboratory might certainly be benefited by undergoing a process of purification from mud, either by Professor Pictet's or some more homely process. The contrast with the surroundings, however, only renders the fine appointments of the laboratory more striking,

machines from radiation of light and heat. The hidden scientific beauty of the machinery is the perfection of the vacua which can be obtained, the pressure being reduced in these machines to $\frac{1}{50}$ mm. of a column of mcrcury.

The problem to be solved in the construction of Professor Pictet's laboratory was to devise a harmoniously-working mechanical system, by which bodies could be reduced to any temperature between +20° and -200° C. and kept constant at that point for any desired period. M. Pictet, after long consideration, became convinced that the problem could only be satisfactorily solved by dividing the process of reduction of temperature into three or more zones, and by using as agents only volatile liquids. The substance employed to produce the first zone of cold consists of a mixture of carbonic and sulphuric acids, known as Pictet's liquid. By the aid of this liquid it is possible to reduce the temperature of small reservoirs to -110° C., and of reservoirs of several square yards superficial area to from -105° C. to -10° C. With pure sulphurous acid only -60° to -70° C. of cold can be produced.

Now comes the second stage in the process, in which the degree of cold already produced by the Pictet mixture—

viz., -100° C.-is taken as the starting-point.

A condenser into which nitrous oxide (produced by the decomposition of nitrate of ammonia) has been compressed is immersed in the freezing-mixture of the initial stage. This nitrous oxide is solidified in the process of compression and attains a temperature of -150°, or even -155° C., which has to be kept up by continual pressure by means of pumps. The vapour escaping from this nitrous-oxide condenser is constantly carried back to it at a temperature of -100°, and liquefics afresh. In selecting his vehicle for the creation of the second cycle of cold. M. Pictet's choice was limited to carbonic acid, nitrous oxide, or ethylene. The first, although the cheapest agent, and the only innocuous one of the three, was discarded because it solidifies too quickly, while a mixture of the two others was inadmissible, on account of its explosive tendency.

The agent employed to produce the third cycle of cold is atmospheric air, which was given the preference over pure oxygen, nitrogen, carbonic oxide, and marsh-gas. This air is compressed into a flask of great resisting power, immersed in the solid nitrous oxide of the second cycle. The air is liquefied under a pressure varying from 40 to 90 atmospheres, and re-enters the flask, in which a temperature of a minimum of -210° C. can thus be produced. The liquid oxygen, as it escapes from the container in which it has been compressed is of a magnificent sky-blue colour, which is possessed neither by ethylene nor by nitrous oxide.

The working of this machinery is very simple. Two or three men are sufficient to take charge of a number of machines, and operate upon large quantities of chemicals.

Professor Pictet's laboratory is not designed for commercial purposes, but is specially fitted up to carry out the various researches on the effects of low temperatures that are of the greatest importance to the scientist. How serious the Professor is in his endeavours can be gathered from the fact that he employs about a dozen trained chemists and qualified medical men, the latter of whom are working on biological and bacteriological subjects.

Thus the effects of the cold on micro-organisms, some of which show great resistance against cold, is tested, and animals of the lower orders, such as leeches, caterpillars, cockroaches, &c., are closely observed after having been

frozen to a solid mass.

The chemical investigations carried on in the laboratory are of still higher interest, as many established chemical hypotheses are upset by the behaviour of chemical compounds when submitted to extreme cold, such as a temperature of -120° C. (-184° F). In fact, chemical reaction of the most violent character at ordinary temperatures is perfectly nullified in the cold. It will probably be scarcely believed that sulphuric acid and caustic soda do not react when brought together at this temperature, so that the Professor is able to let these two chemicals mix with impunity, and only combine if it pleases him to raise the temperature sufficiently to fire their mutual love and stimulate reaction. Professor Pictet believes his methods will revolutionise the production of pure preparations. It will be remember that about a year since Pictet's chloroform was first heard of, and for some time it was thought to be of such purity that no other preparation was equal to it; but, like all things that are good, it did not live long. The most favourable chemical reports could only prove that it was as pure as other chloroforms, but also just as unstable and changeable; and the high price asked was not found to be justified. It was, perhaps, unfortunate that Pictet's ideas for benefiting medicine were carried into practice for the first time on such a delicate subject as chloroform. The prejudice created in this instance had the effect of modifying enthusiasm for his method generally, and little more was heard about the other ways in which the Professor intended to make use of the intense cold he had at his command.

If the Professor is right, a brandy distilled before a man's eyes can be drunk by the same person as an old bottled cognac of fifty years' maturity after it has been subjected to the refrigerating process of Professor Pietet's for an hour.

Those who are fond of an old vintage claret can easily produce out of '91 Médoc a '64 claret of finest bouquet, and all this at the cost of 1d. per lb.

Lovers of Scotch whisky are not forgotten in this grand

scheme, as the Professor declares that whisky can be produced that can be consumed by the gallon (in course of time) without producing the slightest ill-effects the next morning, except the desire for more.

In connection with spirits mention may be made of the absolute alcohol which Professor Pictet rectifies, practically free from odour. Ether of specific gravity 0.719 is manufactured in the same way. It is the only liquid that the Professor has not been able to freeze to a solid form. This appears to show that the process of purification must be a different one in this case, though conducted on the same principle. This ether is free from aldehyde, which can be demonstrated by the absence of colour on adding decolorised fuchsine.

Essential oils have also been extensively attacked by Professor Pictet, and he expects by freezing to isolate the active principles which constitute the chief characteristics of the oils, thus strengthening and purifying the delicacy of the perfume. How far his theories are sound remains to be seen.

. AT THE COUNTER.

"KEY STICK" was how a Cornish customer wrote for Kay's Tic-pills."

"FERRATE OF QUINSIES" was asked for in Huddersfield A pretty near hit at ferri et quiniæ eit.

This comes from Chichester:—"Pleas to go to Griffises Chemist get 3 Peneyworth is own meak pills."

FROM NORTH DEVON.—"Beg pardin'. sur. but do ye sell herrin's?" "No, my friend, but we can oblige you with Epsom salts." "Oh! thank ye—I hope no offence."

A CROYDON subscriber sends us the following orders:—
"Mantle 1d." (menthol); "1d. Parnanelia Balls for sore throat"; "S teething Powder with the to e."

A DUNDEE pharmacist sends us the following note recently received:—"Dear Sir,—Would you kindly forward a small note as soon as possible to above address telling me if you know of anything that would stop young girls growing so tall, as I am inclined very much to do so, all at once and do not wish to be and you will oblige, your obedient servent,————. P.S. Anything harmless to health."

FOR ANATOMICAL INFORMATION.—Tradesman's Wife: "Mister, what's the spleen? Doctor says my daughter's is very low." Chemist: "Don't know what he means—spleen low?" T. W.: "Yes that's what he says is the matter. Look here, mister" (in a subdued voice), "ain't we made like a pig, in our in'ards?" Chemist: "Yes; very like" (hoping for something to follow). T. W.: "I'm blow'd if I don't go round and ask Smith, the pork-butcher, about a low spleen."

LEAN CUSTOMER: "I want some medicine or something that will put more flesh on my bones."

Medicine-dealer (filling bottle from large glass jar): "This will fix you. Take a tablespoonful three times a day, eat plenty of soup, meat, leguminous vegetables, wheat bread, and fruits, and abstain from energetic exercise. 2s. 9d. Thanks."

Fat Customer (five minutes later): "I want something that will relieve me of this superfluous fat."

Medicine-dealer (filling bottle from the same large glass jar): "This will fix you. Take a teaspoonful three times a day, abstain from soup, meat, leguminous vegetables, wheat bread, and fruits, and take plenty of energetic exercise. 2s. 9d. Thanks."



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., March 29.

ACID (CARBOLIC).—Liquid carbolic is very firm and tending higher at 2s. to 2s. 1d. per gallon for 95–98-per-cent. Crude carbolic is also steady at 2s. 5d. per gallon for 60-percent. For crystals the demand has not been altogether so good, although pretty stiff prices are asked— $6\frac{3}{4}d$. per lb. for 34–35 and $7\frac{5}{2}d$. per lb. for 39–40° C.

ACID (CITRIC).—The market is decidedly easier, and there are sellers at 1s. 5d. per lb., usual terms, for fair ordinary quality. For B.P. acid 1s. $5\frac{1}{2}d$. to 1s. $5\frac{3}{4}d$ is asked by the makers.

ACID (TARTARIC).—Very slow of sale at 11d. to 12d. per lb. according to brand.

AMM ONIA SALTS.—Sulphate has fallen somewhat after the recent rise, and the prices to-day are:—Beckton, 12l. 10s.; London, Hull, and Leith, 12l. 12s. 6d. to 12l. 15s.; ditto April delivery, 12l. 3s. 9d. per ton. Carbonate of ammonia has been affected to some extent by the rise in sulphate, and 3d. per lb. is now the lowest price. Makers are generally well supplied with orders. Grey muriate is also steadier at 21s. 6d. per cwt. Sal ammoniae keeps firm at 33s. to 35s. per cwt. according to quality.

ARSENIC.—White powder is now worth at least 13l. 10s. per ton, with a very firm market.

BUCHU-LEAVES still keep arriving; the Anglian has again brought 32 packages from Cape Town.

Camphor (Crude).—A small quantity of fair *Japan* camphor has been sold on the spot this week at 165s. per cwt. For shipment the quotation for Japan is 145s. c.i.f. terms for March-April, and 130s. c.i.f. for *China*, same shipment, though for the latter a somewhat lower offer might be accepted.

CANARY-SEED.—A parcel numbering 311 bags, was offered to-day "without reserve" at auction, and sold at a decline of from 5s. to 10s.; fair Mogadore at 69s. 6d. to 70s.; Turkey at 65s. to 67s. 6d.

CASCARA SAGRADA.—Reported slightly firmer in America, 42s. 6d. is asked there for good quality. At the auctions recently a lot which was offered obtained the bid of 38s. which was refused, being bought in at 45s.

Chloroform.—Prices have been raised slightly, from 1s. 9d. to 1s. 11d. per lb. being now asked by the manufacturers for chloroform from methylated, and 4s. 6d. for ditto from pure alcohol.

CLOVES.—At the close of last week the market for Zanzibar cloves was again firmer, and considerable sales were reported at advancing prices. This week it closes higher again, with fairly large sales at $4\frac{3}{16}d$. to $4\frac{3}{8}d$. per lb. for delivery from March to August.

CINCHONA.—At last Thursday's bark-auctions in Amsterdam, 6.869 packages Java bark (total weight 585,994 kilos.) were offered. The manufacturing barks represented 22,472, and the druggists' barks 1,021 kilos. sulphate of quinine, an average for the manufacturing barks of 4.23 per cent. The

tone throughout the auctions was flat, and only 4,631 packages sold, at a unit ranging from $4\frac{3}{4}c$. to $5\frac{3}{4}c$. (= $\frac{1}{8}d$. to $1\frac{1}{16}d$.) per lb. according to the quality of the bark. The following were the principal buyers:—

Sulph. Quinine.

		Kilos.
Mr. Gust. Briegleb	bought	4,891
The Amsterdam and Mannheim Works	"	3,703
Mr. H. A. C. Wischerhoff	12	2,416
" J. Louet Feisser	99	1,911
Messrs, Matthes & Bormeester	22	1,289
" Hoppert & Heyse	,,	526
Mr. J. de Ligt	,,	488
Smaller buyers	**	465

The general quality of pharmaceutical barks was exceedingly poor, and the total supplies of this kind were small. What was sold of this bark brought unsatisfactory prices. The best parcel of bark in the sale was one of 45 bales crushed Ledger stem. containing the equivalent of 7.83 per cent. of S.Q. This sold at 44c. per half-kin. (=about 8d. per lb, net).

COCA-LEAVES.—There has just been an arrival of 27 cases coca-leaves from Ceylon.

COCHINEAL.—Teneriffe cochineal sells slowly at $10\frac{1}{2}d$. to 11d. per lb. for ordinary to fair black. Silvers realise $11\frac{1}{2}d$. per lb. for ordinary quality.

COLOCYNTH.—The stock of Turkey colocynth has decreased considerably of late. Seedy to fair pale mixed apple is held for 8d. to 11d. per lb.

CUMIN SEED.—For good bright Malta 45s. per cwt. has been obtained this week, which is a very firm price.

GALLS.—China galls are offering at 50s. 6d. to 51s. per cwt., c.i.f terms for arrival. The market is dull and neglected, and on the spot 54s. to 55s. per cwt. is the nearest value. At auction 100 cases China galls were bought in at 55s. per cwt. Japan galls are easier, and might be bought easily at 49s. per cwt. for fair quality on the spot. Bassorah galls have become dull and neglected, with small sales of blue at 60s. per cwt., and of fair to good white at 42s. 6d. to 45s. per cwt.

GUM ACACIA.—The market remains very quiet, though in East Indian gums fair Cawnpore Amrad continues to sell at 30s., and fair Ghatti at 26s. to 30s. per cwt. Turkey gums are neglected. Sengcal (Bas du fleuve) is offering according to quality at from 45s. to 49s. per cwt., f.o.b. Bordeaux.

GUM KINO.—It is said that sales of good East Indian kino have been made this week at the rate of 191. to 201. per cwt., but the quantity is not stated. We believe that the last case lot only realised 161. per cwt., but it would probably be impossible to buy an original package now, as our stock is so small. For a lot of a few pounds weight a bid of 191. per cwt. was refused recently, and to-day it is reported that a "wholesale quantity" has changed hands at 241. per cwt.

GUM OLIBANUM.—The demand keeps up well, and fairly large sales have been made privately recently at high prices.

GUM TRAGACANTH—It is said that much of the recent arrivals is of inferior quality, and largely mixed with hog and small gum. First Bagdad gum has sold at 14*l.*, seconds at 13*l.* 5*s.* to 13*l.* 15*s.*, thirds at 11*l.* 10*s.* to 12*l.*, and fourths and common grades at from 6*l.* 15*s.* to 11*l.* per cwt. The market is hardly so firm as it has been, although the prices can scarcely be quoted lower. Of hog gum 60 packages of new import have been sold, with strong competition, at the extreme prices of from 105*s.* to 150*s.* per cwt. Siftings and pickings fetched 60*s.* to 80*s.* per cwt., and for Syrian hog gum 75*s.* to 85*s.* per cwt, was paid. To-day a ship is in with a parcel of 268 cases and 72 bags, and another vessel with about 100 packages (said to be the balance of the crop) is on the way.

HONEY.—Fine Californian honey has recently been sold in Liverpool at 50s. per cwt.

INDIGO.—Reports from Calcutta dated March 8 state that in Bengal the new season's sowings are progressing most favourably, while, on the other hand, the weather in the Behar remains unsettled, and sowings will not generally commence until the middle of the month. IPECACUANHA.—The only arrivals since last Thursday consist of 18 packages Cartagena root from Panama and Cartagena, and of 10 bales Brazilian root viâ Antwerp. There has also been an import of 20 bags "root" which may be ipecacuanha. Business is reported at 4s. 9d. per lb. for damaged Cartagena root.

JABORANDI.—Five bales have just been received in Liverpool from Maranham.

MUSK.—A firm market, but very little is reported sold. There have been several inquiries, it is said, but they have not led to any transactions so far.

NAPHTHA.—Wood naphtha is fairly steady with a pretty brisk demand, miscible 60 o.p. at 4s. $4\frac{1}{5}d$., and solvent at 3s. $7\frac{1}{5}d$. per gallon. Coal-tar naphtha, on the other hand, is weak, at 1s. to 1s. 3d. per gallon for solvent, according to quality, and at $8\frac{1}{5}d$. for 30-per-cent. crude.

OILS (ESSENTIAL).— Lemongrass has made a further advance, business having been done at $2\frac{1}{8}d$. per lb.; there are now further buyers at that figure. Star-anise oil is lower at 5s. 8d. to 5s. 9d. per lb. on the spot, and a parcel near at hand has sold at 5s. $2\frac{1}{3}d$. per lb., e.i.f. terms. Otto of rose is keeping exceedingly firm, and we are informed that some of the importers have raised their price by about 1s. an oz., brands which were quoted at 27s. being now 28s.; the leading brand is held for 29s. 6d., f.o.b. Constantinople, at least the agents say that they would submit an offer at that figure, though it is not certain that it would be accepted.

OPIUM.—At the end of last week the London market became excited, and considerable sales, mostly of manufacturing opium, were reported at rapidly advancing prices. Persian opium also was in demand at rising rates. The following were the closing prices on Friday: Fine soft shipping, 12s.; fine druggists', 11s. to 11s. 6d.; second ditto, 9s. 6d. to 10s.; Persian, 9s. to 10s. 6d. per lb. During the present week a very considerable quantity of opium has again changed hands, and we close at the following quotations: Soft shipping, 14s. asked for fine quality, though the quotation of 12s. given above appears to be the highest that has yet been paid. Fine druggists' 12s. 6d. paid, now 13s. asked; ordinary second druggists' 12s. paid, Persian 11s. paid. In London the tone all round seems to be an exceedingly firm one.

OPIUM SALTS.—These have participated in the rise in opium. Morphia in powder (hydrochlorate) is now nominally held for 5s. 9d. to 6s. per oz. by the makers, although there appears to be some cheap stock in the second hand which can be bought at several pence below those quotations. For codeia 13s. to 14s. per oz. is asked, and 12s. 6d. is said to have been paid.

ORBIS.—We continue to receive fair consignments from Mogadore.

POTASH SALTS.—English yellow Prussiate keeps fairly steady at 10d. to $10\frac{1}{4}d$. per lb. Refined Saltpetre is worth 20s. 9d. to 21s. 9d. per cwt. for British, according to packing, and 20s. 6d. to 21s. 3d. per cwt. for German. English Bromide of potassium keeps unaltered at the convention prices: there is still some second-hand American offering below these rates. Best Montreal Potashes are quoted at 28s. to 28s. 6d. per cwt. Chlorate very slow of sale, at the following quotations:—Prompt delivery, $8\frac{3}{4}d$. to 9d.; April, $8\frac{3}{4}d$. to 9d.; May, $8\frac{5}{8}d$.; July—December, $7\frac{3}{4}d$. per lb. Permanganate of potassium, in small crystals, is held for 62s. 6d. to 65s. per cwt.

QUICKSILVER keeps steady, at 6l. 10s. per bottle from the first hand, and at 6l. 8s. 6d. to 6l. 9s. from the second hand. A parcel of 5,000 bottles has been received this week from Huelva.

QUILLAIA.—The London stock of about 20 tons which had been stored here for about eighteen months was sold to Hamburg last week, where the article is said to bring better prices than here. There does not appear to be anything left here now.

QUININE.—On Friday and Saturday last about 60,000 oz. second-hand German bulk quinine sold on the spot at from $9\frac{3}{3}d$. to $9\frac{1}{3}d$. per oz., and there were further buyers at that figure at the close of the week. On Monday a further sale of 50.000 oz. was made at $9\frac{1}{3}d$. per oz. On Tuesday 5,000 oz. sold for May, and another lot of 5,000 oz. for July delivery,

both at $9\frac{1}{3}d$. per oz. To-day the market is easier, with a sale of 10,000 oz. B & S, at $9\frac{3}{3}d$. per oz.

An American report, discussing the situation under date March 18, states:—"The situation, according to the condition of supplies here, is more favourable for a speculative movement than at any time within the past six months. In this country the demand for consumption is very large and bids fair to exceed the record of any previous year. Moreover the stocks left in second hands having been heavily drawn upon by the demands of manufacturers and consumers of late, some of the favourite brands are now almost out of stock, and are only to be had in a large way from the agents of the makers. All this tends to give the market an exceedingly firm tone, but the fact that the American manufacturers, in spite of the very active consuming demand, do not see fit to raise their quotations, prevents any improvement in prices for the imported goods."

RHUBARB.—There is nothing doing in this article at present. Our stock is small and said to consist of only 460 eases worked, and 200 cases of unworked root. There is no news from China, the season not having commenced yet.

SARSAPARILLA.—*Honduras* root, "Crown" brand, has been sold privately at 1s. 6d. per lb., showing a steady value.

SHELLAC.—The market for delivery closed firm last week, with few sellers; only 100 cases TN for October delivery being reported sold at 99s, per cwt. On the spot nothing was doing until Monday, when a slightly better demand set in, resulting in some sales of reddish to fine orange at 94s. to 96s., and fine up to 105s. per cwt. At auction only 19 cases shellac were offered and all sold, ordinary blocky and livery second orange, unworked, at 91s., and first Buttons at 115s. per cwt. Both on the spot and for delivery the market has become almost stagnant, the only sale reported being one of 100 cases September TN at 99s. per cwt., and one of 100 cases August at 99s. per cwt.

SPICES.—At to-day's auctions all kinds of spices were quiet and dull of sale; Sago was rather easier with sales at 10s. 6d. to 11s. 6d. for good small to fair medium; Tapioca was also lower. Fair black Lampong Pepper sold at $2\frac{1}{5}d$. per lb. White Singapore Pepper about $\frac{1}{5}d$. Privately 100 bags Penang have been sold at $3\frac{1}{5}d$. per lb. on the spot. Common to good bright Pimento brought 3d. to $3\frac{1}{5}d$. per lb. Of Ginger only a small quantity was offered. Two cases extra fine bold cut Cochin sold at 128s., 10 cases limed Japan at 53s., and 6 barrels common lean dull Jamaica at 65s. 6d. per ewt. Nutmegs and Mace keep quiet.

STAR ANISE.—Slow of sale, offering at 75s. per cwt. on the spot for good genuine Chinese.

STICKLAC.—At auction 65 cases fair small Siam lac sold, without reserve, at 59s. 6d. to 62s. per cwt., showing a decline of about 8s. to 10s. upon the last nominal rates.

ST. IGNATIUS BEANS are exceedingly scarce; from 11d. to 12d. per lb. must be paid for good quality.

TEA.—The market is steady this week, in spite of the near approach of the holidays. A considerable business has been doing in common Kaisow at about 6d., retailers finding they must use this class of tea if they are to get any profit at all out of the 1s. canister. The terminal market for Indians has shown a distinct recovery for the near months, and Pekoe-Souchongs and Souchongs in Monday's sale sold Broken Pekoes continue cheap; but there is a steadily. decided inclination in Ireland to pick up anything that shows special value. Tuesday's Ceylon sale, the last auction before the holidays, went off at about previous rates in most cases; but here and there a slight advance was noticeable, and if Indians are to continue firm, there can be little doubt that a good deal of attention will be paid to the heavy supplies of Ceylon now coming forward. At the moment, Ceylons under 8d. are much better value than Indians at same quotations.

TONQUIN BEANS.—Good qualities are in small supply, and held for full prices; ordinary Para are still offering at 1s. 6d. per lb.

WAX (JAPAN).—Small sales of good pale squares at 37s. 6d. per cwt. on the spot are reported.

THE LIVERPOOL MARKET.

CALABAR-BEANS .- Further sales have been made ex-quay at 2d. per lb.

GINGER.-About 700 bags African have arrived, and value bas declined about 2s. 6d., 47s. 6d. having been accepted for good root.

OIL (CASTOR).—The position is slightly firmer, but in the absence of demand it is impossible to predict a speedy advance: $2\frac{7}{16}d$. to $2\frac{1}{2}d$. still value of good seconds, and $2\frac{5}{8}d$. to $2\frac{3}{4}d$. first-pressure French.

Turpentine.—Arrivals bave brought value down, and holders would now take $24s.\ 9d.$ to 25s. per ewt.

COLOCYNTH.-Two eases partly broken brownish sold at 60.

Guinea-Grains.—Arrivals come in steadily, and 22s. 6d. would now be taken ex-quay for bright seed.

THE SMYRNA OPIUM MARKET.

(Telegram from our Correspondent.)

SMYRNA, Wednesday afternoon.

THE opium market has been excited this week, and a considerable business bas been done at steadily rising figures. The last price paid for fair current manufacturing opium was at the rate of 14s. 3d. per lb. f.o.b. here, a rise of 4s. 11d. per lb. since last Wednesday. But the demand has now ceased, and it does not look as if the quotations will be maintained.

TRADE-MARKS APPLIED FOR.

A NY person who has good grounds of objection to the registration of the following marks should at once communicate with Sir Reader Lack, Comptroller-General, at the Patent Office, 25 Southampton Buildings, Chancery Lanc, London, W.C.

(From the "Trade Marks Journal," March 29, 1893.)

"BYROLIN"; for a chemical substance for veterinary and sanitary purposes, and also for perfumery and toilet articles. By R. Lender, 23 Brandenburg Strasse, Berlin. 170,650, 170,495.

"Sonal"; digestive medicine. By L. T. Asbwell, Natal House, Hadlow, Kent. 168,294.

Device of angel hovering above basin from which water is flowing; for medicinal natural mineral-waters. By the Bethesda Mineral Spring Company, Wankesha, Wiseonsin, U.S.A. 169,597.

Diamond-shaped design and small funnel; for mineral and aërated-waters. By J. Maeintyre, Martin's Square, Kirkintilloeb, N.B. 169,758.

"ODOL"; for a dentifrice. By W. Sebaeht, trading as W. Schacht & Co.. 26 Finsbury Pavement, London. 171,016.

Messrs. Shirley Bros., of 105 Whiteeross Street, E.C., introduce this week two novelties for babies. One is a soother, with good black rubber teat and wbite bone mounts, which includes a ring that is slightly corrugated on each side so as to give a good grip to boneless gums and something for baby to work upon while teething. The same idea is earried out in a larger teething-ring; a noticeable feature is that the eorrugations are not in the same plane. The idea has been provisionally protected. Messrs. Shirley publish this week a new illustrated price-list, which is well worth having, and which any chemist ean get for the asking.



DISPENSING NOTES

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the undermentioned topics.

Dosage.

SIR,—Your dietum that 5j. 4tis horis is generally (in England) translated —th part is contrary to my experience, as I have always been accustomed to write "two tablespoonfuls." I always try and discourage graduated bottles as being inaccurate, and recommend patients medicine-glasses. Yours faithfully,

March 24.

H. R. L. (6/39.)

What is the Odour?

2/69. Inquirer has had the following to dispense:—

Pot. chloratis gr. xxiv. .. 3ij. Oxymel, scillæ .. 3viij. Aq. destil. ad

After being made for twenty-four hours the mixture gave off

a strong smell of sulphuretted hydrogen. Why was this? [We should expect hypochlorous-acid gas and chlorine to be liberated, owing to the action of the acetic acid. Where the sulphuretted hydrogen ean eome from we cannot guess.]

An Excipient Wanted.

SIR,—What is the best excipient for the following pill ?-

Quinæ sulph. gr. ij. Ferri sulph. .. gr. ij. Resin. podoph. gr. ½ Ext. nucis-vom.. gr. ! M. et. ft. pil.

Three gross required at a time.

Yours truly,

A. B. C.

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmaco and Poison Laws of the United Kingdom," Alpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY, page 152 et seq.

6/74. H. S. V.—It appears to be admittedly legal for a person who is registered as a dentist to eall himself "surgeon-dentist." The connecting hyphen is desirable, if not dentist." essential. If you ask two questions on different subjects on tbe same sheet of paper you are very likely to have one only answered.

4/11. Cough-mixture.—We think labelling on the bottle or wrapper is sufficient to satisfy the requirements of the 17th section of the Pharmaey Act. But we should think the careful ehemist would put a proper label on both.

3/67. Mel.—We do not consider that your announcement "Teeth carefully extracted" infringes any law.

260/48. E. W.—Referring to a reply to this correspondent last week respecting the use of the description "Canine specialist," a correspondent informs us that a man at Brighton was fined 40s and costs some time ago under the Veterinary Surgeons Act for so describing himself

3/3. Magnesia asks to what extent, if any, goods may be put out on the pavement for show, as his next-door neighbour has commenced this practice although the shops are fully built out. If the practice can be prevented, who is the

proper party to interfere?

[If the piece of land upon which our correspondent's neighbour places his goods is part of the public street, then there are two authorities that can deal with the obstruction—the local vestry and the police. There is a third remedy—by application for injunction on the ground of nuisance, and this would apply equally if the piece of land were private property provided that a nuisance can be proved. If the piece of land forms part of the street an application to the local police station would, no doubt, be effective.]

3/66. H. H. P. writes:—"An advertisement-contractor uses the upper portion of my side wall as an advertisement-station. He has recently posted bills without permission on the lower portion. I have called his manager's attention to the matter. He professes ignorance, and the occupation continues, fresh bills having been posted there. Can I enforce a claim for rent in view of the fact that there has been no agreement, or must I sue for damages?"

[Our correspondent cannot sue the bill-poster for rent of the lower portion of the building which has been trespassed upon. He can only sue in damages. The rent of the upper portion, however, will be good evidence as to the value of the user of the lower portion and the measure of damages. In addition, of course, the bill-poster will have to pay for his unauthorised acts and his impudence in appropriating other

people's property.]

3/41. Coibum says his water company have served him with notice to provide certain new fittings, and in default they will supply them themselves and will recover cost of same from him. The present sufficed when the water was first supplied, and now they are to give a constant supply. Can they compel owners or occupiers to pay for their requirements?

[The Metropolis Water Act. 1871, section 29, provides that if "any owner or occupier of premises upon whom notice to provide prescribed fittings has been served by such company makes default in providing the prescribed fittings, such company, if they think fit, may provide such fittings, such repairs, shall be paid to them by the person liable to pay the rate for the water supplied, or on whose credit the water is supplied, by means of such fittings, or by the owner of the premises." The prescribed fittings are those referred to in any regulations made under the Metropolis Water Act, 1852. Our correspondent can get a copy of these regulations for his particular district on applying to the water company and paying them 3d. It is provided by section 29 that the occupier can recover the amount paid to the water company for new fittings from the owner of the property, subject to any contract between them, and can deduct it from the rent.]

- 7/47. One in Doubt.—In dispensing medicines containing poisons it is not necessary nor usual to label them "Poison." The Pharmacy Act provides that this may be avoided if a copy of the prescription be entered in a book kept for that purpose, with the name of the person to whom the medicine is sold, and if the bottle &c., be labelled with the name and address of the seller. You should get our treatise on the Pharmacy Laws.
- 8/14. Namo.—You must get the consent of the Board of Inland Revenue before you can use methylated spirit for the preparation of any veterinary medicines. You will get a general idea of what is allowed in this direction from the supplement to Alpe's "Medicine Stamp Handy-book," published by us at 3d.—

- 8/8. Rad. Gent.—You can only use the hoarding if it is a part of the premises let to you. If it is a dividing fence you can only use your side of it, and this you can only use in such a way as not to be a nuisance to your neighbour. Having given notice to determine your tenancy, you can only withdraw your notice with the consent of the landlord.
- 4/7. Chemicus.—The label for "corn-paint" would not render the article liable to the medicine-stamp, but we think that the handbill would bring it within the charge. The Board of Inland Revenue allows an unstamped medicine to be described by the name of the ailment for which it is intended to be used only. "Corn-paint" would pass; "corn-paint for hard or soft corns" exceeds, although very slightly, the regulation of the Board.
- 1/29. Mac.—We do not think that either the label or handbill would render your emollient chargeable with medicine-stamp. It is evidently a toilet-preparation, and if you will strike out the comma between the word "skin" and "occasioned" in the handbill, it is not recommended for the prevention, cure, or relief of anything that is considered by the Board of Inland Revenue to be a distemper, malady, ailment. disorder, or complaint. See Alpe's "Handy-book," page 101.
- 4/20. J. A.—By your handbill you say that you "call special attention to the following pills. The large and increasing sale proves beyond measure their great efficacy," and amongst "the following pills" are mentioned "liverpills." This is a recommendation or holding-out of the liverpills in excess of the regulation of the Board of Inland Revenue, whereby pills described as "liver-pills" simpliciter are allowed to be sold unstamped, and that, no doubt, is the reason for the communication you have received. We do not think there is anything in your point that you do not say in express terms that the pills are beneficial for the prevention, cure, or relief of any ailment. It has failed when put forward as a defence in court.

MISCELLANEOUS INQUIRIES.

The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.

Back numbers, containing formulæ, educational or other specific information can be obtained from the Publisher.

- 3/61. Alpha.—In some museums brine is used for preserving fruit. The simplest way of Preserving Apples and Pears is to pack them in jars in the vapour of chloroform. Warm the jars thoroughly, and place a layer of cotton-wool at the bottom; on this drop several minims of chloroform, then put in the fruit, previously well cleaned with a soft towel, cover with a layer of cotton-wool, upon which put a few drops more of chloroform, and cork the jar thoroughly.
- 3/63. Subscribers.—There is no chemical that we know of which will make natural hair white.
- .3/67. Mel.—Vulcanite is not dissolved by dentists. It is moulded into plates by heat.
 - 4/27. B. M. E.—See our issue of February 18, page 260.
- 5/11. Tenax.—Tarred tow is carded "oakum." It is also made by taking carded jute and saturating it with tarrithinned with benzol. Carbolised tow is made by dipping carded jute in its own volume of a 1-in-20 solution of carbolic acid (acid and glycerine of cach 1 part, water 18 parts), and drying. The product is supposed to be 1 in 20, but, of course, much carbolic acid is lost in drying.

- 5/46. *Peakril.*—To clean the rusted wire netting of the seltzogene, we can only suggest a good brushing with Brooke's soap.
- 5/13. Parrus.—The residue looks like fuller's earth, or something of that nature, which has been rubbed up with the musk and oils of the lavender-water. We can think of nothing else-that it might be.
- 6/2. Zulu.—(1) We notice that Mr. Tom Brooks offers a formula for a single-bottle aniline marking-ink. See also The Chemist and Druggist, March 21, 1891, page 418. (2) Liquor Camphoræ (for camphor-water).—Three drachms of the B.P. spirit to 40 oz. of water. The product is not quite so strong as the B.P. water, but it can be made quickly.
- 6/25. Aqua.—The most rapid way in which you can tell whether a Water is fit for drinking or not is to take 1 oz. of it, add 2 minims of dilute sulphuric acid, and the same of liq. potas. permang. The colour of the first minim of the latter should not be discharged on mixing, and after adding the second the water should remain bright crimson for an hour or more.
- 1/59. H. M. K. (Bombay).—We do not reply by post, nor charge fees for replies. The fault of your Blue-black Ink is that it contains too little of the tannin material and too much ferrous sulphate and aniline blue. The last-named is in exceedingly excessive quantity. Try the following modification of the formula:—

 Tannie aeld
 ... 3vij.

 Gallie aeid
 ... 3v.

 Ferrous sulphate
 ... 3xvj.

 Aniline blue
 ... 3j.

 Water
 ... Cong. ij.

Dissolve the acids in half the water, and the ferrous sulphate in 80 oz. of water with a few drops of sulphuric acid. Mix these solutions. Triturate the aniline blue with 4 oz. of rectified spirit containing 8 drops of oil of cloves, add 80 oz. of water and the mixed taunin and iron solution. Shake well, set aside for three weeks, and decant:

- 1/37. *H. A.* R.—The metal of which the tube that you send us is made consists chiefly of lead. We should not use it for the article which you put up.
- 3/10. 1/pha.—Glue to which 1 per cent. of bichromate of potash is added, immediately before use, may suit your purpose. It resists damp heat.
- 3.29. Norkshireman.—Rhubarb and Magnesia Mixtures are much improved in taste by the addition of syrup equal in bulk to the water used. Peppermint is the best aromatic, but when that is objected to you might try a uninim of chloroform to the ounce.
- 3/12. Acetic.—The odour of Malt Vinegar cannot be properly imitated. Perhaps you are not aware that it is illegal to "doctor" dilute acetic acid so as to imitate the real article. A licence is required for the mixing, and when the article is produced it is not "malt vinegar" of the quality, nature, &c., known to the public. Coriander may, as you suggest, impart a flavour, but acetic ether is claimed to be better and necessary in any case.
 - 3/28. C. B .- See page 307 of the DIARY.
- 3/19. Bunsen.—(1) Claret which has "gone sour" cannot be improved. (2) We have given a formula recently. Please refer to the index.
- 7/18. J. P.—Paris Green is an arseniate of copper, and is largely used as an insecticide.

6/44. Velvet.—Better give us the exact formula of your lrish-moss jelly before we venture upon advice.

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, post-card replies to the following:—

- 1/37. Turquoise-blue bottles: who makes in England?
- 7/10. Homo wants to know a poison put up in pill form to kill moles, by dropping into the holes which they frequent.
 - 7/72. White soft-soap-who makes?

INFORMATION SUPPLIED.

British Oil, or Common Oil of Petre:-

Oil of turpentine	• •	• •	• •	• •	1 quar
Barbadoes tar					1 lb.
Oil of rosemary			••		1 oz.
" origanum			••		1 ,,

T. W. LOWTHER (Birmingham).

G. S. K. (5/47) send a similar reply.

Ol. tereb.	 		 	16 lbs.
Ol. rorism.	 	••	 	2 oz.
Petrol. Bbds.	 		 	8 "

-Gray's "Supplement," 1818, page 322.

WILTS. (5/69.)

In answer to your inquiry as to the composition of "Oil of Petre," the following mixture is what I have been used to making and selling (it is very frequently asked for in Norfolk):—

Н. Т. НЕУНОЕ.

253/7. Basham's Mixture is an official synonym for mist. ferri et ammon. acet., U.S.P.:—

					Part
Tinct. ferri mur.				3iss.	2
Acid. acet. dil	••			3ij.	3
Liq. ammon. acet.				3xiv.	20
Elixir, aurantii;	(clixir	simp	licis		
B.P.C.)				5vi.	10
Syrupi				3j.	15
Aquæ				3vi	50
*				0.3.	

"Add the tinct, ferri mur, to the mindererus spt. previously mixed with the acid. acetic, dil. Add elixir, syrup, and water, and mix thoroughly."—U.S.P.

A. McKellar (Glasgow).

Tr. ferri chloridi	• •	 	 3ss.
Acid. acet.dil		 	 ₹j.
Liq. ammon. acet.		 	 3ivs
Tr. aurant. cort		 	 3iss.
Glycerini		 ••	 3ss.
0			

A tablespoonful, largely diluted, two or three times a day.

-Stille and Maisch, page 1445.

J. F. BROWN (Dover).

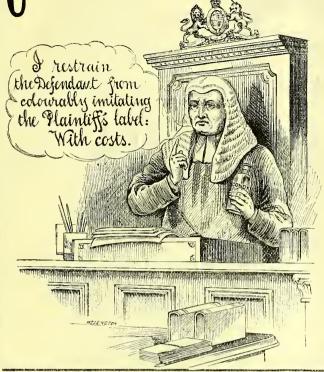
Next Week.

Meetings, &c., to be held, and business to be transacted thereat. Suitable notices will be inserted in this section if received by the Editor on or before Wednesday.

MONDAY, April 3.—Edinburgh Pharmacy Athletic Club in the Pharmaceutical Society's House, at 9.15 P.M. Annual general meeting, Secretary's and Treasurer's reports, election of office-bearers, &c.

THURSDAY, April 6.—Chemists' Assistants' Association, 103 Great Russell Street, W.C., at 9 P.M. Musical and social evening, under the direction of Mr. H. H. Robins.

CONDY'S FLUID CONTAINS NO PERMANGANATE OF POTASH.



COHOY'S FLUID COLOURABLE IMITATIONS.

Eleven Injunctions

With damages and costs have been obtained against Chemists selling a solution of Permanganate of Potash in execution of orders for

CONDY'S FLUID.

CONDY & MITCHELL, Ltd., 67 Toromill St., E.C.

"ORIGINAL"
GRANULAR
EFFERVESCENT
PREPARATIONS:

SILVER MEDAL, PARIS, 1889.

HIGHEST AWARD FOR GRANULAR PREPARATIONS.

PIPERAZINE.

5 grs. in 60 grs.

This new remedy for Gout and kindred disorders, now being so largely tried by the Profession, is best given in our Granular Effervescent form.

Price per lb. .. 28/4 Size per doz. .. 38/6

PIPERAZINE WITH PHENOCOLL HYDROCHLORIDE.

5 grs. of each in 60 grs.

Our Granular form is the best method for the administration of this new remedy for Rheumatic Gout, Rheumatism, &c.

Price per lb. .. 33/4 Size per doz. .. 45/-

PHENOCOLL HYDROCHLORIDE.

5 grs. in 60 grs.

The new remedy for Neuralgia and Neuralgic Pains, especially in Influenza and ailments accompanied by feverish symptoms.

Price per lb. .. 8/4 Size per doz. .. 21/-

PHENACETIN.

5 grs. in 60 grs.

The value of this new preparation as an antipyretic and analgesic is now fully established. The Granular form is a very convenient and pleasant one for its administration.

Price per lb. .. 5/Size per doz. .. 12/-

LISTS FREE.]

AND ALL OTHER GRANULAR PREPARATIONS

LISTS FREE

Price

Price Lists Post Free on application.

None genuine without this Trade Mark.

ALFRED BISHOP & SONS, LIMD.

MANUFACTURING CHEMISTS, "Speck's Fields," 48 Spelman Street, LONDON, Eng.

CRESCENT



BRAND.

BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

ANALYSIS.

Bicarbonate of Soda		•••	•••	***	•••	97:20
Mono Carbonate of S	Soda	•••		•••	•••	1,00
Sulphate of Soda	•••		•••	•••	•••	trace
Chloride of Sodium	•••	•••	•••	•••	•••	.032
Moisture	•••	•••	•••	•••	***	.82
Insoluble	• • •	•••	•••	•••	•••	nil

PURE ALKALI,

GUARANTEED 58 DEGREES.
EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers, Bleachers, Dyers; Glass, Paper, and Soap Makers.

CONCENTRATED CRYSTAL SODA

(Sesqui-Carbonate).

By far the Purest and Cheapest form of WASHING SODA.

Only 1 lb. of Concentrated Crystal Soda required to do the work of 2 lbs. of Washing Soda.

SODA CRYSTALS

OF THE FINEST QUALITY.

Also BLEACHING POWDER.

BRUNNER, MOND & CO., LIM.

| Manufacturers of Soda by the Ammonia Process,

NORTHWICH, CHESHIRE.

Branch House: HOPKIN & WILLIAMS, 16 CROSS ST., HATTON GARDEN, LONDON, E.C.



Established 1798



Howards & Sons

QUININE, CINCHONA ALKALOIDS,

In consequence of the appearance in the market of "ÆTHER PURUS, P.B.," evidently made from Methylated Spirit (vide "Pharmaceutical Journal," January 28th, 1893), we have ascertained that the purification of Methylated Æther is not prohibited by law. We therefore offer

"Æther Purus P.B., made from Methylated Spirit,"

Guaranteed free from methyl compounds. Terms on application.

We shall continue to supply "ÆTHER PURUS" made, as all ours has been hitherto, from pure spirit at list prices.

AND OTHER PHARMACEUTICAL CHEMICALS.

Stratford, Essex.







Detailed Price Lists on application.

J. F. MACFARLAN & CO., MANUFACTURERS OF MORPHIA and SALTS, CODEIA and SALTS,

AND ALL PRODUCTS FROM OPIUM.

PURE CHLOROFORM

A DEFINITE CHEMICAL COMPOUND, ANSWERING B.P. AND ALL OFFICIAL TESTS.

Has obtained the confidence of the most eminent Surgeons, has been used successfully in the Edinburgh Royal lnGrmary, in the Edinburgh Royal Maternity and Simpson Memorial Hospital, and in important Institutions both at home and abroad.

ANÆSTHETIC ETHER, as used by Dr. Thomas Keith.

17 NORTH BRIDGE, EDINBURGH, AND 71 COLEMAN STREET. LONDON.

CHARLES DELACRE & CIE.

(Pharmaciens de 1 classe),

WHOLESALE AND RETAIL CHEMISTS AND DRUGGISTS.

OH. DELACRE, PHARMACIEN. AMB. DELACRE, PHARMACIEN.

ESTABLISHED 1853.

Montagne de la Cour, Brussels.

GENERAL AGENTS

For BELGIUM and HOLLAND for [2]

MESSRS. BURROUGHS, WELLCOME & CO.'S

"Tabloids" and other Productions.

PURE FRENCH

EGG ALBUMEN

Per 26 Pound.

H. W. VINEY

15 WOOLLASTON ROAD, HARRINGAY, LONDON, N.

** ** ** ** ** ** ** A CHEMIST writes:— ** "I find the Aural and other Suppositor es to be giving unusual sa isfaction. Please send on 10 boxes of each." ** ** ** ** ** ** ** ** A CHEMIST writes:— ** *

Full particulars, with Wholesale Prices, of SAUTER'S "STAR" PREPARA-TIONS on application to

MANAGER, CENTRAL ENGLISH DEPOT OXFORD RD., CUISELEY, NEAR LEEDS.

STOKES'

GASH TILL.

REDUCED

PRICE

50/-

(Sent on Trial seven days, on receipt of two references).

Particulars and Testimonials on application.

G. R. STOKES & CO., LIM., HANLEY, STAFFS.

DR. WARLOMONT'S ANIMAL VACCINE.

PATENT No. 4623. 28 SEPT. 1882.

From information which has been conveyed to him, Dr. Warlomont has reason to believe that Animal Vaccine prepared on the Continent in accordance with the invention the subject of this patent is being imported into this country. CHEMISTS and DRUGGISTS—whether Wholesale or Retail—and the MEDICAL PROFESSION generally, are respectfully informed that any importation, sale, or use of such Vaccine would constitute an infringement of Dr. Warlomont's patent rights. The only guarantee of Dr. Warlomont's Vaccine is the Label and Trade Mark of the Association for the supply of Pure Vaccine.

12 PALL MALL EAST, LONDON, S.W.





SALICYLIC

SALICYLATES

MANUFACTURED UNDER KOLBE'S PROCESS BY

J. HAUFF, FEUERBACH - STUTTGART.

To be obtained from the Sole Agents.

N.B.-Stock kept in London.

FUERST BROS, 17 PHILPOT LANE, LONDON, E.C. Telegrams-"FUERST LONDON." Telephone No. 1050.

MAGNESIA

CARBONATE, CALCINED, AND HYDRATE.

PURE FLUID MAGNESIA.

THE WASHINGTON CHEMICAL CO., WASHINGTON, COUNTY DURHAM, ENGLAND



TREFOIL BRAND

CAMPHOR.

Further Consignment just received from Japan of



COMPRESSED CAMPHOR,

In Half-ounce and One-ounce Blocks.

EACH CASE CONTAINS 200 ONE-LB. PACKETS.

This Camphor is much cheaper than the European article, and is equal in quality to the best English brands. H. Helbing, F.C.S., and Dr. F. W. Passmore, in a report on this Camphor, say:—"The result of our investigation shows that the preparation is a **perfectly pure Camphor**, being, in fact, identical with the pure chemical compound, $C_{10}H_{10}O$."

Further consignments are on the way, and regular supplies of blocks (3 to the ounce, $\frac{1}{3}$ oz., 1 oz., and 2 oz.) will shortly be obtainable, as well as **FLOWERS OF CAMPHOR** for Manufacturing Purposes. Smaller quantities than a case can be obtained of the Wholesale Houses. Messrs. EVANS, LESCHER & WEBB, of Bartholomew Close, have Stock.

FOR FURTHER PARTICULARS APPLY TO

JAMES MORRISON & CO., London and Continental Agents, 4 FENCHURCH STREET, E.C.

BARRON, HARVEYS & CO.

GILTSPUR STREET, LONDON, E.C.

Beg to inform their friends and the Trade generally that, having purchased the Business of

BARRON, SQUIRE & CO., BUSH LANE, and also the various Formulæ of the Special Preparations of

JAMES BASS & SONS, HATTON GARDEN.

they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 28 years without deterioration.

BORAX HYPO. SALTS SALTPETRE ALUM BICARB. SODA ACIDS SULPHUR. - & C., & C.

SAVE TRAVELLERS' EXPENSES & SECURE PURITY by buying direct from SMITH & HUTCHINSON, 24 KING ST., L'POGL

THE

.STANDARD OF QUALITY.

ESSENTIAL OILS

MANUFACTURED OR SELECTED BY

DODGE & OLCOTT,

NEW YORK, U. S. A.

ESTABLISHED 1798.

OILS BAY, CARAWAY, CLOVES, CUBEBS, PEPPERMINT, SANDAL, SASSAFRAS, SPEARMINT, TANSY, WINTERGREEN, WORMWOOD AND MANY OTHERS.

AGENTS FOR THE UNITED KINGDOM-

ASHMORE & SON.

AGENT FOR THE CONTINENT OF EUROPE- 6 MINCING LANE,

CHAS. WESTPHAL.

London, E.C.

195 Upper Thames Street,

London, E.C.

R. W. GREEFF & CO., 29 MINCING LANE,

J. D. RIEDEL, BERLIN.

SPECIALITIES.

SULFONAL-RIEDEL,
PHENACETIN-RIEDEL,
THIOL-RIEDEL,
PEPSIN-RIEDEL,
CHLORALHYDRATE-RIEDEL,

SALIPYRIN-RIEDEL.

SALIPYRIN-RIEDEL is sold Wholesale by Messrs. ALLEN & HANBURYS, Plough Court, Lombard Street, E.C.

DR. HENRY BYK'S PURE CHEMICALS.

ACID. PYROGALLIC BISUB.

Professor Dr. Vogel says:—".... light snowy white and carefully prepared article—DISSOLVING COMPLETELY and quickly in water or alcobol."

Professor Dr. J. M. Eder says:—"Dr. Byk's Pyrogallic Acid

Professor Dr. J. M. Eder says:—"Dr. Byk's Pyrogallic Acid is exceedingly light and bulky as good an Acid as can be produced."

This is the lightest, and consequently purest, Pyro in the trade.

AMMONIUM BROMIDE. GOLD CHLORIDE. HYDROQUINONE.

DR. BYK'S PERMANENT HYDRO-

QUINONE, PATENT. Insensible to moist air and light.

SODIUM BROMIDE. ACID. BENZOIC. E RESINA.

Guaranteed to be sublimed from and retaining the fragrance of Gm. Benjamin.

ACID. GALLIC. CRYST. CHEM. PURE.

Perfectly white needles.

ACID. TANNIC.

Purest quality, powdered and granulated. Disselves colourless in water, alcohol, and ether, free from resinous and colouring matter. For medicine and finest work in art.

ACID. TANNIC LEVISSIMA PUREST.

Dissolves colourless in water, alcohol, and ether, free from resinous and colouring matter. Used for similar purpers as the chemically-pure powder.

POTASH BROMIDE CRYST.

POTASH IODIDE CRYST.

RENNET POWDER.

SODIUM BENZOATE.

SODIUM IODIDE.

BISMUTH SALICYLATE.

STRONTIUM BROMATE.

SALICYLIC ACID AND

SALICYLATE OF SODA.

Chemically and Physiologically Pure.

SOLE WHOLKSALE AGENTS:

R. W. GREEFF & CO., 29 Mineing LONDON, E.C.

PECIAL NOTICE TO CHEMI



The manufacture of Soluble Pearl Coated Pills was first introduced into Leicester by Mr. T. HOWARD LLOYD (18 years partner in the firm of JOHN RICHARDSON & CO.), and they are now made with the most complete and modern machinery, ensuring accuracy and uniformity, by

T. HOWARD LLOYD & CO. STREET, LEICESTER.

NET Special

In Ten Gross and One Pound Tins for CASH WITH Of	DER.		
	Per grou	9.	
Pil. Aloes et Ferri, P.B	6d		4/_
" Colocynth, Co., P.B — — — —	11d.	-	8/-
" Colocynth. et Hyos., PB. — — — —	1/1		Z _
,, Rhæi Co., PB	64		4/3
APERIENT. 105 (Each Pill contains & gr. of Calomel) -	64		4/3
APERIENI. 105 (Each Felt birtheath & yr. b) Castinaty)			,
106 As No. 105, with 1 gr Calomel in each Pill	8d.		4/6
107 A. No. 105, without Calomel	6d.		4/3
110 Hospital Pills, each containing gr. of Calomel	6d.	-	4/6
ANTIBILIOUS.			
	1/-		8/6
62 Hydrarg, Pil. gr. 1; Ext. Coloc. Co.; Pil. Rhei Co. aa. gr. ij.	1,2		10/-
262 Podophyllin gr. ss.: Ext. Coloc.Co.gr. ij.; Ext. Hyoscy.gr.i.	1,2		10/-
COUCH.			
164 Pulv. Ipecac. Co.; Pulv. Gum. Ammon. aa. gr. 188.;			
Pulv Scille gr. i.; Saponis Hyspan, gr. ss	7.1.		5/_
167 Pulv. Ipecac.; Pulv. Scillæ aa. gr. 3; Pulv. Capsici;			
Pulv. Opii aa gr. 1; Pulv. Gum. Ammon.; Ext. Conii			
an. gr. i	8d.	•	5,6
CASTOR OIL.			
289 Rhei Puly.: Potass, Sulph. aa. gr. iss.; Puly. Sape.			
Hysp.; Ol. Ricini aa. gr. ss.; Ol. Crotonis gr. 1	6d.		4/-
	64.		4,-
TONIC. 370 (Blaud's Formula)			
371 (Blaud's Formula, Martindale's improved)	6d.	-	41-
"LITTLE" APERIENT. 458	5d.		20/-
	. ,		90/
"LITTLE" ANTIBILIOUS. 462			20/-
Samples of the above with our Complete List sent on application.			

In ordering, please note Address, and see that the Label on each Bottle or Tin corresponds with the above Block.

MRS. WINSLOW'S SOOTHING SYRUP

FOR CHILDREN TEETHING,

Greatly facilitates the process of Teething, by softening the gums, reducing all inflammation; will allay ALL PAIN and spasmodic action, and is

SURE TO REGULATE THE BOWELS.

Depend upon it, Mothers, it will give rest to yourselves, and

RELIEF & HEALTH TO YOUR INFANTS.

Mrs. WINSLOW'S SOOTHING SYRUP

Has been used for over Fifty Years by Millions of Mothers for their children while teething with perfect success. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for diarrhœa.

BROWN'S BRONCHIAL TROCHES

CURE COUCH, COLD, HOARSENESS, AND INFLUENZA. CURE ANY IRRITATION OR SORENESS OF THE THROAT.
RELIEVE THE HACKING COUCH IN CONSUMPTION. RELIEVE BRONCHITIS, ASTHMA, AND CATARRH.
CLEAR AND CIVE STRENGTH TO THE VOICE OF SINGERS, AND ARE INDISPENSABLE TO PUBLIC SPEAKERS.
SOOTHING AND SIMPLE, CHILDREN CAN USE THEM, AS THEY ASSIST EXPECTORATIONS AND RELIEVE
HOARSENESS.

NOTICE.— Brown's Bronchial Troches are guaranteed to contain no Opium or other Poison.

London Office - 33 FARRINGDON ROAD.

THE

MEXICAN HAIR RENEWER

Prevents the Hair from Falling Off.

Restores Grey or White Hair to its ORIGINAL COLOUR.

Being delicately perfurred, it leaves no unpleasant odour.

IS NOT a Dye, and therefore does not stain the skin, or even white linen. Should be in every house where a HAIR RENEWER is needed.

Should be in every house where a MAIR RENEWER is needed.

ASK YOUR CHEMIST OR THE MEXICAN HAIR RENEWER,
Price 3/6 per Large Bottle. Prepared only by

THE ANGLO-AMERICAN DRUG COMPANY, LIM.

33 FARRINGDON ROAD, LONDON, E.C.

Counter Bills and Show-cards for Mrs. Winslow's Soothing Syrup, Brown's Bronchial Troches, Floriline, and
The Mexican Hair Renewer, sent tree of charge on application to

THE ANGLO-AMERICAN DRUG COMPANY, LIM., 33 FARRINGDON ROAD, LONDON, E.C.

COMPRESSED DRUGS

Maintain their high reputation against all comers for general excellence of quality and finish.

SPEC	IAL	LIN	ES	0
			1 lb.	7 lbs.
GHLORATE OF PO	TASH -		- 1/-	/11
			_	
CHLORATE OF PO	TASH AND	BORAX -	- 1/-	/11
GOMPOUND SULPI			- 1/-	/11
33 33 34				0 M M
SODA BICARB.			. 1/-	/11
SOUR DIVILLE.				,
SODA MINT			- 1/-	/11
OCUM MINT			8/-	/ 11 12

NET CASH WITH ORDER.

[1]

A FULL ASSORTMENT OF COMPRESSED GOODS KEPT.

PRICES ON APPLICATION.

8 CREECHURCH

LANE,

LONDON,

E.C.

LOFTHOUSE & SALTMER,

MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUG MERCHANTS, HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on application. DEALERS IN PURE CHEMICALS for Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot, Otto de Rose, and all



Essential Oils; Valentia Saffron; Vanillas; Fruit Essences; Carmine, Aniline Dyes; Bees' Wax, &c., &c.

MANUFACTURERS of Very Superior Flexible Gelatine Capsules of Balsam Copaiba, Cascara Sagrada, Castor Oil, Cod-liver Oil, Santal Oil, &c. Samples and Lowest Quotations per 1,000, or in Boxes for Retail, will be sent on application for either the Wholesale or Retail Trade.

TIDMAN & SON,

WHOLESALE, EXPORT, AND MANUFACTURING PERFUMERS.

Dealers in Druggists' Sundries. Makers of Feeding Bottles, Fancy Soaps, Cosmetics, Toilet Requisites, &c. Proprietors of Tidman's Sea Salt, Tidman's Sea Soap, Tidman's Carbolic Disinfecting Powder, White's Glycerine and Honey Jelly, &c., &c.

BUSHELL STREET, LONDON, E.

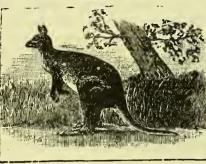
ILLUSTRATED PRICE LIST POST FREE TO ANY PART OF THE WORLD ON APPLICATION.

Telegraphic Address-" BLUEBERRY LONDON."

Telephone No. 11,392.

EUCALYPTUS OIL

25-lb. Tins. KANGAROO



25-lb. Tins.

TRADE MARK.

Is admitted to be the Purest Eucalyptus Oil yet introduced to the public.

To be obtained of your Wholesale Druggist.

SOLE CONSIGNEES—LAUGHLAND, MACKAY & BAKER, 50 Lime St., LONDON.

COLONIAL ADDRESS-A. M. BICKFORD & SONS, WHOLESALE DRUGGISTS, ADELAIDE.

The Sanitary Institute of Great Britain has always given the Highest Awards, when tested against other so-called Disinfectants, to

CALVERT'S No. 5 CARBOLIC

Which is of the quality adopted as "Standard" by the British and German Governments after bacteriological tests. Unscrupulous statements that other disinfectants are superior to genuine Carbolic Acid should be treated with the distrust they deserve.

The Chemist and Druggist, July 30th, 1892, says:—"Although the superiority of Carbolic Acid as a Disinfectant has frequently been challenged, there is no doubt that it continues to hold the first place in public favour,"

Price Lists, Showcards, and Counter Bills on application to

F. C. CALVERT & CO., MANCHESTER.

Awarded 60 Gold and Silver Medals and Diplomas.

PARAFFINUM MOLLE, ABSOLUTELY FREE FROM ALKAL ABSOLUTELY FREE from ACII HAS NOW STOOD THE best TEST OF YEARS The purest The leading. AND & The cheapest ESTABLISHED Petroleum Jelly ITSELF Supplied by all Wholesalers. In Casks of 3 cut. In Kegs of 1 cut. 1 lb. In Tins of 14 lbs. 5 lbs., and 1 lb. In bottles (uithout Labels) of 2 cz. and 4 oz. BINCHAMTON OIL REFINING CO., NEW YORK STATE, U.S.A. London Ag ncj-3 COLEMAN ST., E.C.

JOHN MURDOCH & CO.

Sussex House, 52 Leadenhall Street,

LONDON, E.C.

IMPORTERS OF

GUM ARABIC, BUCHU LEAVES, AND ALOES.

SOLE CONSIGNEES

NATAL OIL OF EUCALYPTUS GLOBULUS

AGENTS FOR

PEPSINE (2,500 strength),

Manufactured by Armour Packing Company, Kansas City, U.S.A.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.
WHOLESALE ONLY.

ESTABD. 1793.

CENTENARY 1893.

RICHARDSONS' RECORD!

ONE HUNDRED YEARS.

Established in the year 1793, the well-known firm of

JOHN RICHARDSON & CO. LEIGESTER, LTD.

has gained a reputation second to none

HIGH-CLASS PHARMACY

Their prices
compare favourably
with those
of any firm

OF GOOD REPUTE.

WRITE TO RICHARDSONS,
RICHARDSONS OF LEICESTER.

THE

For destroying Weeds, Moss, &c., on Garden Walks, Carriage Drives, Roads, Meadows, &c.

tWe desire to point out the special advantages which the sale of our "Acme" Weed Killer affords the Trade. 1. The "Aome" Weed Killer is used in the gardens and on the estates of the Gentry everywhere, and by Corporations and Buriai Beards in Park Jemeteries, &c.

Park Cometeries, &c.
2. Our Retail Prices are such as will induce a ready sale, and we make no chargefor 1 and 2 gallon tins.
3. We pay carriage on twelve gals, in 1 and 2 gall, tins, and on 10 galls, in drums and unwards, to any Station or Port in Great Britain.
4. Drums and casks are charged at cost price. Full price allowed when returned.

Trade and Export Terms on application. The most Liberal Terms to the Trade.

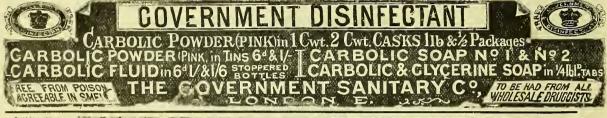
BETAIL PRIORS.—In 1 and 2 gallon tins, 2/- per gallon (tins included); in 5-gallon drums, 1/6 per gallon; 10, 15, and 20 gallons,
1/4 per gallon; in 40-gallon casks, 1/3 per gallon.

TESTIMONIALS received from Mr. HEAD, Crystal Palace; Mr. IRWIN LYNCH, Cambridge Botanic Gardens; and others.

THE "ACME" WEED KILLER, FOR CHEAPNESS & EFFICIENCY, HAS WON FOR ITSELF A NAME FAR ABOVE ALL OTHERS.

SOLE PROPRIETORS AND MANUFACTURERS-

THE ACME CHEMICAL CO., LIM., Tunbridge, Kent; & Carlton St., Bolton, Lancashire.





VE STOOD THE TEST FOR MANY YEARS TO GIVE SATISFACTION

WHOLESALE DRUGGI



GRINDILEY'S

"PIONEER" BRAND

SANITARY FLUID

(SOLUBLE CARBOLIC).

THE BEST AND CHEAPEST DISINFECTANT & CLEANSER.

Pale Liquid Carbolic Acid, 97%. Dark Crude Carbolic Acid, 25%, 30%, 5%, 10%, and 15% Pink Carbolic Powders. and 50%.

> QUALITY GUARANTEED.

SAMPLES AND PRICES ON APPLICATION TO

GRINDL

TAR AND ROSIN DISTILLERS.

POPLAR. LONDOM.

...

TENACIOUS.

BARCLAY SONS, LIMITED.





This Popular Enema at 22/- per doz.

In Cedar Boxes, with Vagina, Rectum Pipe, and Shield.

ADHESIVE.

Black, Unpolished, Seamless (shape), in Cedar Boxes (complete) Polished, Seamless 29/- ,, in Oval Leather 33/- ,,

95 FARRINGDON ST. LONDON. E.C.

"TIT-BIT" HAND CAMERAS, 10/6, 12/6, 15/- each, Retail. A few at Special Discount 50 per cent.

REGI

SIXPENNY & SHILLING SIZES 4s. and 8s. per dozen.

Special care is taken in

selecting good Bottles and Corks.

the later hidden fragrance. AND KEEPS WELL.

SIXPENNY and SHILLING Sizes, at 3/6 and 7/- per doz. BRUSHES INCLUDED.

SPECIALITIES FROM THE LABORATORY OF THOMAS JACKSON, Strangeways, MANCHESTER.

COPPERFIELD ROAD

LONDON.

LARGEST WAKERS IN THE KINGDOM.

prepared to supply METHYLATED SPIRIT in are 5-gallon quantities at Lowest Prices.

REDUCTIONS BUYERS. TO LARGE SAMPLES FREE.

DISTILLERS, FOREIGN WINE AND SPIRIT MERCHANTS, AND METHYLATORS, ALLHALLOWS' LANE AND BARTHOLOMEW CLOSE, LONDON, E.C.

Finish on application. Quotations for S. V. R. Methylated Spirit and QUININE WINE FOR

JAMES BURROUGH FINE PORT (without tannin) SHERRY (for Medicinal uses, &c.) MALAGA (for Steel Wine, &c.) BURGUNDY (for invalids)

S.V.R. and Methylated Spirit at lowest present prices.

CALE ST DISTILLERY

All at Lowest Prices and specially recommended.

CHELSEA

49

ANDREW OHLSON,

Pharmaceutical Coppersmith & Engineer, Telegraphic Address-EAST LONDON COPPER "ARRAIGNER & IRON WORKS. LONDON." 85 New Road, WHITECHAPEL. Established upwards of 30 years.

COPPER PERCOLATOR WITH HYDRO COVER.

STEAM JACKET PANS, EVAPORATING, TILLES, STEAM JACKET PAGE (STREAM JACKET PAGE)
LOVES, ALMONDS, COLLING, CUTIC, MINT, CAVENDER, COLTRATE, COLTRATE, DISPILLED WATER, VACUUM, ABORATORIES FITTED UP COMPLETE.

MISCELLANEOUS,
OIL SEPARATORS,
OOPPER MEASURES,
PERCOLATORS,
HYDRAULIC
TINCTURE PRESSES
BARSA. TANKS WITH
COILS

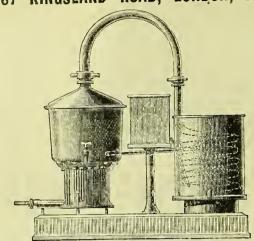
TANGYES' GAS ENGINE

OTTO' PRINCIPLE. PINKNEY'S PATENTS SINGLE ENGINES OF ALL SIZES FROM 1 TO 146 ACTUAL OR 170 INDICATED HORSE-POWER

APPLY FOR ILLUSTRATED CATALOGUE TO TANGYES LIMITED, BIRMINGHAM London, Newcastle, Manchester, Glasgow, Sydney, Melbourne Johannesburg, Genoa, Bilbao, and Rotterdam.

BENNETT, SONS & SHEA

ENGINEERS AND COPPERSMITHS, 167 KINGSLAND ROAD, LONDON, N.E.



This Apparatus produces 5 gallons of pure Distilled Water per day, and is entirely automatic in its action. Merely requires connecting to water and gas main, and wants no attention.

AN CIL LAMP CAN BE USED IF REQUIRED.

PRICE AND FULL PARTICULARS ON APPLICATION



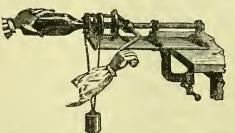
For pressing JUICES, TINC-TURES, and other substances, are the best for MANUFAC-TURING CHEMISTS and They are strongly constructed, and are unrivalled for SIMPLICITY and CONVENIENCE.

Price List and Full Particulars on application to

MAYFARTH & CO.. 16 MINCING LANE, LONDON, E.C.

NEW CAPSULING MACHINE

The only Machine which leaves no crease or pleat on the Capsule.



Can be fixed to any Counter. A single pull of the lever is sufficient to fix the Capsule.

Patentee-C. MELIN, 37 Crutched Friars, LONDON, E.C. 50

"ANGLO-NORWEGIAN"

COD-LIVER OIL.

SEASON 1893.

This Cod-Liver Oil is pure, stands the cold without solidifying, and is quite sweet; with an agreeable odour of the fresh liver. It is the FINEST oil, with the least possible colour, taste, or smell.

An assortment of artistic Labels, with Chemist's Name and Address. [11]

EVANS, LESCHER & WEBB,

60 BARTHOLOMEW CLOSE, LONDON.

NOTICE

RELATIVE TO

CONGREVE'S BALSAMIC ELIXIR

WORLD'S PROVED REMEDY

COUGHS, COLDS, HOARSENESS, ASTHMA.

CHRONIC BRONCHITIS, INFLUENZA,

OTHER CHEST AFFECTIONS.

In Bottles 1s. 11d., 2s. 9d., 4s. 6d., 11s., and 22s.

This Medicine is Not Affected by the Fharmacy
Act—and ALL PERSONS HOLDING
A PATENT MEDICINE LICENCE
MAY SELL IT.

IT MUST NOT BE LABELLED "POISON."

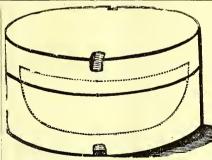
WILLIAM TOOGOOD.

TOOGOOD'S

IMPROVED PATENT

EARTHENWARE COVERED POTS

Are claimed to be the most gerfect and convenient yet offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THIOKNESS— 1 11 2 3 4 6 ounces. 1/6 1/6 1/6 1/8 1/10 2/- 2/3 2/10 3/6 4/6 5/6 per doz THIN FOR DISPENSING— 1 11 2 3 4 6 8 ounces. 1/7 1/9 2/- 2/2 2/5 3/- 4/- 5/- 6/- per doz.

TOOGOOD'S BRONCHITIS KETTLES. Write for New Season's List.

TOOGOOD'S CHEST PROTECTORS. Write for New Season's List.

TOOGOOD'S INDIARUBBER HOT-WATER BOTTLES. Write for New Season's Lists.

TOOGOOD'S INHALERS. Write for Special List.

BURLINGTON BUILDINGS, HEDDON ST., REGENT STREET, LONDON, W.

51

Important Notice to Chemists, & all Retailers of Patent Medicines:—

OWBRIDGE'S LUNG TONIC does not contain any Scheduled Poison, therefore ALL persons holding Patent Medicine Licences can sell it, and no one has a right to attach "Poison" labels to the bottles.

This Notice and Caution have been rendered necessary by the recent action of the Pharmaceutical entry in reference to Patent Medicines.

The known superiority of Owbridge's Lung Tonic as a safe and effective remedy for Coughs, Colds, or any affection of the Lungs, makes it important the Public should know that no difficulty exists in obtaining it.

Prepared by W. T. OWBRIDGE, Chemist, Hull.

Sold in Bottles, 1s. 1½d., 2s. 9d., 4s. 6d., and 11s., by all

Chemists and Patent Medicine Vendors

Wholesale, all London and Provincial Houses

Small size—1s. $1\frac{1}{2}d$.—price £5 2s. per Gross, carriage paid to any part of Great Britain or Ireland. Cheque to accompany order.

CAUTION!

SPECIAL NOTICE TO THE TRADE

LION OINTMENT & PILLS.

DEACON v. BURGESS.

In the High Court of Justice, Chancery Division, on Saturday, December 17th, Mr. Justice Kekewich, in delivering judgment, said "that it will be sufficient, I think, and I am sure quite safe now to say that the plaintiff (Mr. H. J. Deacon), who certainly has not proved his knowledge of the genuineness, but who has clearly indicated his ignorance, and who is attempting to sell as genuine medicine that of which he is really ignorant."

N.B.—A full report of the Judgment appeared in The Chemist and Druggist, December 24 last.

CHEMISTS ARE PARTICULARLY REQUESTED TO ORDER

E. BURGESS, JUNR.'S, LION OINTMENT AND PILLS,

And to see that the Label bears Address,

59 GRAY'S INN ROAD, W.C.

As these are the ONLY GENUINE Goods, and this fact will be EXTENSIVELY ADVERTISED THROUGHOUT THE KINGDOM.

The Trade is respectfully requested to refer to the issues of "The Chemist and Druggist" of December 10 and 17, and to read the Statutory Declaration made by E. Burgess, Junr., before the Lord Mayor of London. E. B., Junr., is the only person living with the knowledge of method of manufacture of these Remedies, and all statements to the contrary are untrue.

BEECHAM'S TOOTH PASTE.

All Chemists, Druggists, and Stores should Stock this new article, which is being well advertised, and, as it is a really good speciality, will shortly be in great demand. It is put up in collapsible tubes, retail price 1/-, and can be obtained from any Wholesale House.

BEGHAMS PILS

The most saleable Patent Medicine in the market.

In Boxes $9\frac{1}{2}$ d., 1s. $1\frac{1}{2}$ d., and 2s. 9d. each.

HOME RETAILERS desirous of exhibiting Iron Tablets, Showcards, or Dummies, and wishful to have a good supply of Handbills, Beecham's Oracles, Music, &c., are requested to notify their requirements to the Proprietor,

THOMAS BEECHAM, St. Helens, LANCASHIRE.

53

THE CHEMISTS' LIQUORICE JUICE.

"THE BEST AND PUREST."

Larger sale than any other first-quality juice. To be had of all Wholesale Houses.

SOLE AGENTS FOR ENGLAND, AMERICA, AND THE COLONIES-

& CO., 33 FLAVIO GIOIA, NAPLES. 7 and 8 IDOL LANF, LONDON. DENNIS LUGGO

Telegraphic Addresses-"DILUGGO LONDON," "DENNIS NAPLES,"

SO

Sole Consignee:

Cullum Street.

LONDON. E.G.

"Brand - CARLO ERBA."

> CONTAINS NO POISON.

In the worst cases of DIPHTHERIA, QUINSEY, and all DISEASES of the THROAT and CHEST, its effect is simply marveilous.

Wholesale Depot for London and South of England: - MARCH & CO., 26 SOUTHWARK ST., S.E.



Immediate Relief in

> COUCHS. CONSUMPTION.

GIVES

ASTHMA,

BRONCHITIS.

TIC, SPASMS.

HYSTERIA, &c.

SICKNESS, REVISED PRICE

CHOLERA,

CRAMP, AGUE,

INFLUENZA.

Retail. | Per doz Towle's Chlorodyne .. Ditto (3 fluid oz.) 4 6 Preparation ditto 1 lb. 1 lb. Chlorodyne Lozenges Pastilles

Labelled according to the Act.

Showcards and Handbills

A. P. TOWLE & SON, 75 Back Piccadilly, MANCHESTER. 54

Examine your Stock.

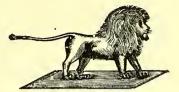
Every genuine Box and Bottle has the Lion Trade Mark on.



Facsimile of Ointment and Pill Label.



REGISTERED



TRADE MARK.

LION OINTMENT, PILLS, & NERVE TONIC.

(Late Proprietor, E. BURGESS, of Bolborn, W.C.)

The Proprietary Rights in the above Ointment, Pills, and Nerve Tonic, also goodwill of business, together with all Trade Marks, Registered at Home and Abroad, HAVING BEEN PURCHASED BY ME OF THE SENIOR OFFICIAL RECEIVER, Mr. GEORGE WREFORD (he being Trustee to the Estate), all ORDERS and communications should be sent to address at foot,

Notice is hereby given that all those intringing my rights, either by preparing or selling spurious Ointment, Pills, or Nerve Tonic, will be at once proceeded against.

November 14, 1892

DEACON, Chemist,

15 BROMLEY ROAD, BECKENHAM, KENT.

A New Drug for Dysentery and Diarrhœa.

This Drug was discovered a few years ago by Mr. A. H. G. Pigg, when exploring in Eastern Africa. It was originally obtained from a native Wise Man or Doctor, and was the cause of curing many obstinate cases of Dysentery. It consists of the powdered bark of a tree supposed to be hitherto unknown to science.

Testimonial from Mr. C. A. Moreing, M. Inst.C.E.,

BROAD STREET HOUSE, LONDON, E.C. GENTLEMEN,-I have much pleasure in telling you that I have taken the "Lungili" you so kindly sent me, and it appears to have completely cured me. I have been suffering four years from Dysentery, the result of malarial fever eaught in Africa, and no doctors were able to do me any permanent good by the ordinary remedies. Yours tru'y,

C. ALGERNON MOREING.

35 LUDGATE HILL BIRMINGHAM:

or of Wholesale Druggists, EVANS, SONS & CO., Liverpool, and EVANS, LESCHER & WEBB, London.



ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH 12x PALL MALL EAST, LONDON, S.W. SOLE AGENTS FOR

DR. WARLOMONT'S CALF VACCINE

Thes, in each; Half Tubes, is. each. Pomade in visit, 6s.

HUMAN VAOCINE, from healthy children only, microscopically examined and source quoted. Tubes two-thirds full, is. Sc. each; Tubes one-third full laceth; Tubes two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, is. Dern 19se. Vaccine Ejectors, is. 3cd. each. including postage, P.O.O.S (including tostage, and crossed London and Westminster Bark) with orders, payable to EDWARD DARKE, Secretary

Class hours, 10 to 4. Naturdays 10 to 2.



HARROLINE PILLS.

The Great Harrogate Tonic.

An unfailing Cure for Poverty of Blood, Anæmia, Chlorosis, and every form of Debility arising therefrom.

ls. 1 d. and 2s. 9d.

WHOLESALE FROM THE

HARROLINE PILL CO. HARROGATE.

FULL PARTICULARS & TERMS ON APPLICATION

TINCT.

ACONIT.

SHOP BOTTLES & JARS

SPIR: VINI RECTI WITH VITRIFIED (burnt in) LABELS

(Black Letters on a ground of Pink or White Enamel).

Labels indestructible and of elegant appearance, forming an even surface with the glass or porcelain. The Jars of best porcelain, thoroughly greaseproof. The Bottles hand-made and of superior quality. Both are unsurpassed by anything in the market in every respect. Also a CHEAPER sort of Bottles and Jars, with labels equally indestructible, but very plain, especially suitable for Dispensaries, &c. Intending Buyers are requested to inspect Samples at

H. POTHS & CO., 4 CREECHURCH LANE, LEADENHALL STREET, E.C.

Samples of the above will be Exhibited at

The Chemists', Druggists', and Allied Trades Exhibition, April 22 to 30, 1893, and an inspection of same is respectfully solicited.



Write for revised Price List of Dispensing Bottles, &c.

SAMPLES ON APPLICATION.

Special Quotations for Large Quantities.

E. YOULDON,

EAST LONDON GLASS BOTTLE WAREHOUSE,

36, 38, & 40 Great Garden Street,

WHITECHAPEL, LONDON, E.

PLEASE MAKE

A NOTE

JOHNSEN & JÖRGENSEN'S

DISPENSING BOTTLES

Limes, Kalis, Vials, &c., &c., are THE BEST, and always in stock.

TRY THEM

Offices and Showrooms: 5 Savage Gardens, Tower Hill, London, E.C.

NEXT TIME

THE

BERKEFELD - NORDTMEYER FILTER



THE LANCET, September 12,1891;—
"We have put the Berkefeld Filter through many rigid tests; we have not obtained the slightest evidence which would enable us to contest any of the statements made in regard to this filter."

ADVANTAGES.

Rapid, Perfect, and Permanent Filtration.

All Descriptions Supplied.

The Berkefeld Filter Co., Limited, 121 Oxford St., London, W. LOCAL AGENTS APPOINTED.

GLASS BOTTLES

in London or direct from the Works.

SPECIAL PACKAGE for the New Year, 1893, containing— s. d.

The New Shape with rounded edges, or the ordinary shape, either plain or graduated.

The above "Special Package" is sent, Carriage Free, to any part of England.

SAMPLE BOTTLE SENT FREE ON APPLICATION.

1. ISAACS & CO. Glass Bottle Manufacturers, 25 Francis St., Tottenham Court Rd., LONDON, W.C. Bitablished 50 Fears. Bankers-London and Westminster Bank.

PERFECTION ATTAINED.

DR. COULTER'S COMBINED

Vocalists AND

Elocutionists Will find the Vaporizer of very great benefit in loss of Voice or Throat Complications.

Made of Copper and Brass, Nickelplated. It has no Glass Tubes, and no Valves to get out of order.

PRICE-22/6

> Perfumer and Deodorizer Attachment.

VOLATILIZER. CHAMPION

NEW CANADIAN INVENTION. A New Instrument for Vaporizing Oils and Drugs for Inhalation, and for DISINFECTING AND DEOBORIZING SICK ROOMS,

Hospitals, Public Buildings, Railway Carriages, &c., also for Perfuming Parlours, Churches, Opera Houses, &c.

Excels all other Inhalers, as it reduces Drugs and Oils to vapour, in which

condition only can they reach the cavities and air passages to be medicated, thus acting directly in the treatment of DISFASES OF THE NOSE, THROAT, AND LUNGS, such as Consumption, Bronchitis, Asthma, Whooping Cough, Croup, Diphtheria, Catarrh, Hay Fever, and Influenza.

ADVANTAGES.

1. A non-irritating, thoroughly medicated vapour is obtained; the reservoir containing the medicated sponge being placed at a distance of 8 or 10 inches from the boiling water, and complete volatilization of the healing prescription to be inhaled is effected, thus insuring its

reaching directly the part affected. Other so-called vaporizers are only atomizers, breaking the medicine into fluid particles, which are not diffusible,

and are too heavy to be inspired.

2. By vaporizing antiseptics, it quickly sterilizes the whole of the atmosphere of a room or building in cases of infectious diseases, thereby abolishing the danger of infection in cases of Diphtheria, Scarlet Fever, Cholera, Measles, &c., &c.

3. It is simple, durable, convenient of manipulation, and absolutely proof against explosion or fire, as a perfect safety-lamp accompanies each instrument.

It is the only volatilizer that is unanimously endorsed and recommended by medical men, sanitarians, and chemists, amongst whom are the following:

W. B. GEIKIE, M.D., C.R., D.C.L., Fellow Royal College of Surgeons Edinburgh, L.R.C.P. London; Dean of Trinity

Medical College, Toronto. H. C. WOOD, M D., LL.D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System in the University of Pennsylvania.

G. STERLING RYERSON, M.D., C.M., L.R.C.S. Edinburgh; Professor of Ophthalmology and Otology, Trinity Medical College, Toronto.

N. A. POWELL, M.D., Lecturer on Surgical Appliances and Demonstrator of Anatomy, Trinity Medical College; also

Lecturer on Practice of Surgery, Woman's Medical College, Toronto.

WM. PORTER, M.D., Professor of Diseases of the Chest, Laryngology, and Clinical Medicine, St. Louis College of Physicians and Surgeons, Consulting Physician to the Throat and Chest Department of the City Hospital, &c.

C. O'REILEY, M.D., Medical Superintendent Toronto General Hospital.
G. R. McDONAGH, M.D., L.R.C.P. London, Instructor of Laryngology and Rhinology, University of Toronto.

CHARLES DENISON, M.D., Professor of Diseases of the Chest and Climatology, University of Denver, Colorado.

FREDERICK W. STRANGE, M.R.C.S., England, Toronto. SIR JAMES GRANT, M.D., Ottawa.

F. LYDSTON NEWMAN. M.D., Lecturer Materia Medica, Detroit College of Medicine.

CYPRUS EDSON, M.D., President of the Board of Pharmacy, City and County of New York.

NORMAN ALLEN, M.D., C.M., M.R.C.S. England, Medical Health Officer, Toronto.

C. P. AVISON, M.D., Demonstrator of Materia Medica and Pharmacy, Medical Faculty of Toronto University, Professor of

Materia Medica and Botany, Ontario College of Pharmacy.

J. T. FOTHERINGHAM, M.B., M.D., C.M., Professor of Microscopy and Materia Medica Ontario College of Pharmacy, Toronto.

CHAS. B. HEEBNER, PH.G., Professor of Pharmacy and Director of the Pharmacal Laboratory, Ontario College of Pharmacy, Toronto. Formerly Instructor of Pharmacy at the College of Pharmacy of the City of New York.

MOREAU R. BROWN, M.D., Lecturer on Laryngology and Rhinology, Chicago Polyclinic.

EISEN BOCKIUS, M.S., M.D., L.L.B., late Professor of Medical Law, College of Physicians and Surgeons, Chicago

By order of the Surgeon-General of the United States Army, Dr. Coulter's Combined Vaporizers are in use in the United States Army Post Hospitals. With each Instrument fifteen of Dr. Coulter's Vaporizing Remedies in Phthisis, Influenza. Catarrh, Whooping Cough, Croup, Diphtheria, Sore Throat, Brenchitis, Asthma, Quinsy, Hay Fever, Pneumonia, Typhoid Fever, &c., &c.

Descriptive Pamphlet with Testimonials on application. May be obtained from any of the leading Druggists and Surgical Instrument Makers, from Marshall & Co., 217 Buchanan Street, Glasgow, or direct from

THE COULTER VAPORIZER CO., LTD., 24 Charing Cross, Whitehall, LONDON.

"THE GAMGEE" VACCINATION PAD ABSORBENT AND ANTISEPTIC



Patent Apon No. 4160.

DIRECTIONS FOR USE.

Gently warm the strips of plaster, place the pad in position, as in drawing, and then fasten the tapes to the desired tightness.

RETAIL PRICE $\mathbf{4}^{D}$ EACH

THIS PAD

Has been designed to protect the arm after vaccination. It is easily applied, comfortable in use, and, while affording thorough protection, adapts itself readily to the movements of the arm. When once properly fastened, while securely retaining its original position, it will afford ready access for dressing or examining the part.

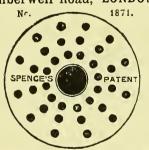
SOLE MAKERS:- FRAZER & GREEN GLASGOW.

Sole Wholesale Agents-S. MAW, SON & THOMPSON.

SPENCE'S PATENT SHIELD DEPÔT,

44 Camberwell Road, LONDON, S.E.

Spence's
Goods
have the
Largest Sale
in
London.



Agents
Wanted
in
Provinces
and
Abroad.

For full explanation and prices of Shields. Spince's Safety Feeding Bottles and Soothers, fitted with Patent Shield, see Diary for 1893, page 297, or upon application.

MOC-MAIN PATENT LEVER TRUSS

WHITE'S MOC-MAIN

Highly recommended by Medical Men.

Equally comfortable in an erect or reclining posi-

tion.

All our Truses are manufactured on the Premies, and

NONE ARE CENUINE UNLESS BEARING OUR NAME STAMPED ON THEM.

Sciatic, Riding, and other Belts. All kinds of Elastic Goods. Consultations, Descriptive Circulars, and Price Lists FREE. Female attendant.

J. WHILE & CO. (1st floor). 228 Piccadilly, Londor, W. Betablished over 50 years

SURGICAL

ABSORBENT
COTTON LINTS,
FLAX LINTS,
ROLL BANDAGES,
COTTON WOOLS.



TRADE MARK (REGISTERED).

DRESSINGS.

"GAMGEE TISSUE"

(Patent Absorbent Gauze and Cotton Wool)

AND

All kinds of ANTISEPTIC

DRESSINGS.

MANUFACTURED BY

ROBINSON & SONS, COTTON SPINNERS, WEAVERS. Wheat Bridge Mills, CHESTERFIELD,

And 55 Fann Street, Aldersgate Street, LONDON, E.C.

NOTHING EVER DEVISED EQUALS

SEABURY'S

SULPHUR CANDLES

(Patented 6407).

DISINFECTION BY FUMIGATION.

Will destroy Disease Germs after Infectious Diseases in Vacated Apartments or Hospital Wards, also Bedding, Clothing, and Drapery.

Influenza, Scarlet Fever, Smallpox, Typhoid Fever, etc.



These Candles afford the only safe means of burning sulphur indoors—one Candle will burn two hours, and thoroughly disinfect a room of ordinary size.

Will destroy noxious vapours from sewers, cesspools, &c.

Used and approved by Boards of Health in all parts of Great Britain and America.

These Candles were used to fumigate the Royal Courts of Justice, the War Office, and the Committee Rooms of the House of Commons during the Influenza Epidemic.

READY-MADE MUSTARD PLASTER (Seabury's)

Spread on strong cotton-cloth, also on paper, ready for use at any moment by simply dipping the Plaster into water until perfectly wet.

Our Mustard Plaster is a decided improvement over all other manufactures; guaranteed absolutely pure and free from Croton Oil or other dangerous substitutes. To insure greater efficiency and to guard against the injurious effects of dampness, we wrap our Mustard Plasters in waterproof paper.

SEABURY & JOHNSON

ORIGINAL MANUFACTURERS OF

PHARMACOPEIAL & SURGICAL PLASTERS IN RUBBER COMBINATION,
Antiseptic Dressings, Absorbents, and Surgical Specialities.

Seabury's Manufactures are known to be THE BEST. Always alike good and reliable.

A Full and Complete Stock of all our Manufactures is kept at our London Address, and orders promptly executed as heretofore.

In ordering through the Wholesale Houses do not omit to specify SEABURY'S, and return all substitutes.

LONDON OFFICE AND WAREHOUSE - 32 and 33 SNOW HILL, E.C.

Oil of Aimonds,
Perfuned Waters,
Lavonders, and sil
Essential Oil* SCHLESINGER,
When St.
FINESE URE
INDESTORE,
MUSE, CIVET,
AMBERCERS,
MUSCHINOL,
OTTO de ROSH,
and ever Telegrams— MBERGRIS LONDOM," Established 1854,

"MORSTADT"

Are the most digestible, flexible, and elegant Caohets in the market, and are fast replacing all competitors. The Cachets are made to hold from 3 to 183 grains Quinine or Salicylio Acid.

"MORSTADT" OACHET CLOSING APPARATUS, to easily, cleanly and speedily close 12 Cachets at one operation, from 12s. to 30s.

BMALL APPARATUS, to fill and close 1 Cachet at a time, 2s. 6d. each.

THOMAS CHRISTY & CO., 25 Lime St., London, E.C.

S.V.R.

AB. ALCOHOL. SHERRY AND ORANGE WINES.

Lowest Price, Best Quality.

DALTON STREET DISTILLERY, MANCHESTER A. MACNAIR & CO.

NATALI, ELKANAH

SHOPFITTER and GLASS SHOW-CASE MAKER, Removed te more Extensive Premises,

OLD ST. (only address),

Tweive doors from City Road, nearly epposite the old place.

A Large Stock of New and Second-hand Cases, &c., always in hand. No connection with any other house of the same name.

ESTABLISHED ABOUT QUARTEE CENTURY.

HUDSON'S HALF - MINUTE THERMOMETER, Inland Post Free, 3/6.



CLINICAL THERMOMETERS IN CASES 25/- per dozen. Trade Disconnt.

For Medical Press Opinions apply

HUDSON & CO. 5 Crosby Square, LONDON, E.C.

In 40-gailoureturnable iron casks, pure tinued, with sorew bungs, interchangeable brass taps and spanners for opening. Farine, Dextrine Glucose, Aicohol absolut, Fusel Oil, Pear Oil, Lime-Seda-Lead-Acetates, Verduris, Acetic Acid. Wood Naphtha, Charoosi, Ammonis inquid 880-900. anhydrons Sodium Sniphide, Bromides, Iedides, Chiorainydrate, Boracio Acid Sniphate of Cepper, Permanganate of Potash, Oi. Oarvoohyll. Menth Pip., Pini, Juniperi.

HUGO LORENZ, 7.8 Idol Lane, LONDON, E.C.

See also page 114. March 18 issue.



E. H. THIELLAY'S (Registered 1867)

MOUSQUETAIRE

A bright Fixing Liquid for the special training of the MOUSTACHE. Invaluable to Medical Men. repelling infectious means from the respiration. In Cases, with Brush, Pom-Hongroise, &c. at 2-, 3 6, 5-, 7 6, &c. Most successful Nonethy, 2-, ample not tree 15 stamps.

All Wholesale Houses, or direct from

Parfumeur-Chimiste. Amersham Park, New Cross, LONDON.
(SHOW ROOMS AT CHARING CROSS HOTEL.)

BRACHER'S PATENT





See large Advertisement, page 162. March 18.

WHITESTAN PURĖS T.

CHEAPEST SELLERS IN THE MARKET. ALSO CHEMICALS, DRUGS, AND OILS,

AUG. LEVERMORE & CO., 8 LIME STREET, LONDON, E.C.

ORANGE

(VIN. AURANT., PB.).

Specially brewed for Quinine Wine. Does not deposit, will keep good in any climate. In casks, 13 gallons to 140 gallons; small casks, 3s. 3s. reg gallon, carriage allowed if paid within three months. In wine-bottles (not less than 3 dox., at 9s. per dox., buttes included. Casks and cases extra, and returnable.

Sample on application. Special quotations to large bayers.

DURRANT & CO., Railway St., HERTFORD.

POWELL & BARSTOW,

(Late W. HURLSTONE & CO. EsTABLISHER 1830)

Manufacturers, on the premises, to the Wholesale and Export Trade of every description of Eastic Gum,

SURGICAL INSTRUMENTS AND ELASTIC STOCKINGS. Catheters, Bougies, Œ-ophagus Tubes, Horse Catheters, Ferguson's Glass Speculs, Rectum cougies, &c.

58 BLACKFRIARS ROAD, LONDON, S.E.

Samples and Prices on application.

Guaranteed free from all injurious impurities.

Purest in the World.

SEND FOR ANALYSIS AND TESTIMONIALS.

SALAMON & CO., LD., CHEMICAL MANUFACTURERS, RAINHAM, ESSEX.

E. BRAMWELL & SON.

Navigation Chemical Works, ST. HELEN'S, LANCASHIRE,

HYPOSULPHITE OF SODA) Special Quality for Photographers SULPHITE OF SODA

CLAUBER SALTS. PURIFIED EPSOM SALTS.

FRED! FINK

10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES: Glycerine — Gum Arabic — Gum Tragacanth-Pure Beeswax-Honey.



Printing of Chemists' 46 Sir Thomas's Buildings Liverpool, Eng.

Established 1807. WILL CURE. CHEAPEST. MOST PROFITABLE.

Not Sold under Price on Box. Send Hand-bill or Labels.

EADE'S GOUT and RHEUMATIC PILLS

the safest and most effectnal remedy advertised for GOUT, RHEUMATISM, AND ALL MUSCULAB PAINS.

GEORGE EADE, 72 GOSWELL RD., E.C.

Counter Bills and Show Cards on application.



SOLUTION OF

An infallible remedy for Anæmia, Poorness of Blood, Cadugestion, Hæmorrhages, &c. Easily taken even by hildren. Does not affect the stomach cause CONSTIPATION, nor BLACKEN THE TEETH.

Sole Agents, W. SUTTON & CO., 76 Chiswell St , LONDON. PARIS, 46 Rue du Vaugirard, Lesecq Pharmacien. Price, 3/6 the Bottle.

Bronze Medal Barcelona, 1888; Silver Medal Paris, 1888.

HARTMANN'S TOWELETTES LADIES

ARE NOW PUT UP AS FOLLOWS : The Popula 6d. Packet, containing half-a-dozen, and the

THE SANITARY WOOD WOOL CO. (L'MITED), 26 THAVIES INN, LONDON, E.C.



DON'T MISS

NOW READY.

Advertising Novelties and List Blocks for all Trades QUARTERLY, 31d. ANNUAL SUB., 1s. 2d.

174 FLEET STREET, E.C

LABELS AND SHOW CARDS.

Medical Slip Labels Lithographed, from 10d per 1,000. Reversible Labels (e.g. White Letters, Coloured Ground), from 1s. per 1,000.

SHOW CARDS, 12×10, Lithographed, Varnished, and Taped, from 15s. per 100. Saline Wrappers, with Name and Address, from 7/6 per 100.

SPELLER & CO., 13 GANDY ST., EXETER. ENGLAND.

BLAUD'S PILLS (Best Quality, Soluble Coating).

10-gross Tins, carriage paid, for 4/6. Cash with order. 7-lb Tins (56 gross), carriage paid, for 21/-. Cash with order.

COMP. SULPH. LOZ. (Garrod's Formula) & TABLETS.

4 lbs., carriage paid, for 4/. Cash with order. 7 lbs., carriage paid, for 6/6. Cash with order. SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

JAMES N. DAVIDSON & GRAY, CHEMISTS, DUNDEE.

FOR LONG NUMBERS OF PAMPHLETS, BILLS, &c. Send for Estimates from

RCONOMIC PRINTING & PUBLISHING COMPANY, Ltd., 30. BOUVERIE STREET, FLEET STREET, E.C.

NEW CROP FIRST EXTRACT

LEMON OIL.

Absolutely pure. Nothing finer imported. 5/9 per lb. c.i.f. Hull, London, or Liverpool, delivered as required up to December, 1893. Special quotations for quantities.

MARK LEWIG, 23 Old Corn Exchange, MANCHESTER, and in LIVERPOOL and LONDON.

DIRECT AGENT FOR LARGEST CONTINENTAL HOUSES.

Manufacturing Chemists, LONDON.

T. F. ELTON.

Chemist and Druggist, 28 Endsleigh Gardens, EUSTON.

RAYBOULD'S FURNITURE POLISH

In Tins—1d., 7/- gross. Stone Bottles—1d., 8/- gross; 3d., 2/- dozen; 6d., 4/- dozen; 1s., 7/- dozen. It is sure to please and increase your trade. Every Chemist should send for Sample order, 6 dozen assorted as required, Carriage Paid, P.O.O. or Cheque, payable to

FLESHER RAYBOULD, REFORM WORKS, DUDLEY.

Upon receipt of a Post-card our EXPORT List will be regularly mailed to any part of the world.

FLETCHER, FLETCHER & STEVENSON 21 MINCING LANE, LONDON, E.C.

GUM ARABIC

AND DRUG MERCHANTS.

DER LELY & SIMPSON. 3 New London Street, LONDON.

WHITE, FAIRCHILD & CO.

30 GREAT TOWER STREET, E.C.

ESTABLISHED 1847.

SPECIALITY.—The "Original Canister" and Roasted Coffees. These Coffees have been before the Public for nearly 50 years, and are the very best of their kind.

BLAIR'S **GOUT & RHEUMATIC**

Cure Gout, Rheumatism, Sciatica, Lumbago, Neuralgia.

The Excruciating Pain is quickly relieved, and cured in a few days, by these celebrated Pills, well known as the Great Remedy for the above Complaints. NO POISONOUS INGREDIENTS.

TO LET.

WALKER, TROKE & CO. WHOLESALE DRUGGISTS.

65 Bath Street, City Road, LONDON, E.C.



SOLE MAKERS OF

GABRIEL & TROKE'S **GELATINE CAPSULED** HORSEBALLS.

Alterative, Condition, Cordial, Cough Diuretic, Fever, Physic, Worm, Quinine Tonio Balls (Registered 81,291).

QUOTATIONS & SAMPLES FREE ON APPLICATION.

TRADE MARK

ESSENTIAL OILS.

BERGAMOT, LEMON, ORANGE, MANDARINE.

IG. SILES, REGGIO CAL

NO AGENTS. DIRECT CORRESPONDENCE SOLICITED.

GENUINE EAU DE COLOGNE

Johann Maria Farina
| Gegenüber dem Laurenz Platz | 2 oz., 7/6, 4-oz., 14/-; 1-pints, 21/-, pints, 42/-; quarts, 84/- per doz.

The second largest sale amongst Chemists in the U.K.

Sole Agents-OSCAR MOENICH & CO., 8 COLEMAN STREET, LONDON, E.C.

R C TREATT

Dunster House Mineing Lane

LONDON

IMPORTER OF

Musk Civet Ambergris

Attar - of - Rose

ESSENTIAL OILS



LONDON

Z

STOCK KEPT

Wholesale and Export only

RPLICATION

ON ON ON

ALCE S

SUZIO

& ANDRIULI

ESTABLISHED A.D. 1757.]

GRASSE (Alpes Maritimes), FRANCE.

Neroly, Lavender, Geranium, Orris, Patchouly, Thyme, Rosemary, Spike, Santal, &c.

CONCENTRATED PERFUMES.

CONCRETE ESSENTIAL OILS.

FLOWER POMADES at the highest possible Saturation. ROSE & ORANGE FLOWER WATER, Sweet Almond Oil.

London Agent-MR. FREDK. BOEHM, 4 CULLUM ST., E.C.

COCKING'S JAPAN OIL OF PEPPERMINT.

Our Extra Steam Refined Oil is trebly distilled and twice rectified by steam, by an entirely new process and in apparatus of our ewn invention, by which all those polymeric products of a tarry and resineus nature which are objected to by some consumers are extracted. It is of water-white colors retaining its full arems, pungency, and strength, and guaranteed absolutely pure and soluble in spirits of wine.

COCKING'S JAPAN MENTHOL CRYSTALS.

Onr Extra Steam Refined quality is in firm, hard, dry, and snowy-white orystals, entirely free from elly contamination, and therefore of the highest mediag-point. As the original and largest manufacturers in the world of the true Japan Menthol, we guarantee our brand to be absolutely pure Beware of substitutes. For full particulars, therapentic uses, &c., see special circulars, to be had on application.

Sole Agents-JOHN BATT & CO., 39 OLD BROAD ST., E.C.

STOCK KEPT IN LONDON

SUPERFATTED MEDICINAL SOAPS

MANUFACTURED UNDER THE CONSTANT CONTROL OF

Dr. MED. J. EICHHOFF, Senior Physician to the Wards for Skin and Venereal Diseases of the Elberfeld Hospital,

FERD. MULHENS, No. 4711 Glockengasse, Cologne-on-Rhine.

1250. Menthol-Eucalyptol Soap

1251. Menthol Soap

1252. Salol Soap

1253. Thymol Soap (for Children)

1254. Ichthyol-Tar Soap

1255. Salicylic-Ichthyol Soap

1256. Sulphur-Camphor-Peruvian Balsam Soap

1257. Salicylic Soap

1258. Salicylic-Sulphur Soap

1259. Salicylic-Sulphur-Tar Soap

1260. Creoline Soap

1261. Resorcine Soap

1262. Aristol Soap

1263. Iodoform Soap

1264. Benzoic Soap

1265. Pine-Needle Extract Soap

1266. Resorcin-Salicylic Soap

1267. Resorcin-Salicylic-Sulphur Soap

1268. Resorcin - Salicylic - Sulphur - Tar

1269. Quinine Soap

1270. Hydroxylamine Soap

1271. Ergotine Soap

1272. Iodine Soap

1273. Salicylic-Creosote Soap

1274. Sublimate Soap, ½ %

1275. Sublimate Soap, 1 %

1276. Thiol Soap, 5 %

1277. Thiol Soap, 10 %

TO BE OBTAINED FROM ALL THE LEADING WHOLESALE HOUSES IN THE U.K.

Begs to inform the Trade that he has removed from 29 Fenchurch Street to more convenient Offices at

22 FENCHURCH ST., E.C.,

to which Address all future communications should be sent.

For "Private Brands" of milled and superfatted Soaps, toilet as well as medicinal. We put up for the trade as a specialty all kinds of Dentifrices, Saponaceous Powder, Paste in Collapsible Tubes, &c., &c.

DANBURY STREET, Islington, London, N.

LARGEST TOOTH SOAP Ung COMPRESSERS IN

SOUND WHITE

BROWN'S JEWSBURY &



This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards

forwarded on receipt of address cards and directions for enclosure.



WRITE . FOR TERMS OF AGENCY.

We invite the attention of the trade to this high-class tooth powder which is now being well advertised and will be found to command a ready sale. The most eminent members of the musical and dramatic professions have testi-

fied to its worth. It is giving satisfaction to both the trade and the public wherever it has been introduced. Vacilities for assisting our agents local sales, and we shall be pleased to supply full particulars upon hearing from you.

Address: DOROTHY DENTIFRICE COMPANY, 11 & 13 St. Bride Street, London, E.C.

THE LARGEST SALE THE WORLD.

Special terms sent on application for £5 worth,

WOODS & SON, PLYMOUTH, ENGLAND



(SYSTEM LANGEN).

Highly recommended by authorities. The only make of perfect purity in all respects

AGENTS -

BURROUGHS BROS., 66 Basinghall St., LONDON, E.C.

USE READ AND

THE ART OF DISPENSING. Price 3s. 6d.

ALPE'S HANDY BOOK OF MEDICINE STAMP DUTY. Price 2.66 PROCTOR'S MANUAL OF PHARMACEUTICAL TESTING. Price 2s. 6d.

VETERINARY COUNTER PRACTICE. Price 31.84.

Published at the Office of THE CHEMIST AND DRUGGIST,

PRICE LIST TON.

NAPOLEON PRICE & CO.

(SOLE SUCCESSORS TO PRICE & COSNELL).

Established 1770.

Proprietors of THE ROYAL PERFUMERY COMPANY. Old Bond Street. W.

WHOLESALE & EXPORT 164 ALDERSGATE ST., LONDON, E.C.



SPECIAL NOTICE.



"Materials of the best quality only are evidently used in the Manufacture of all these products, a precaution of especial importance when articles for the Toilet are used."—The Lancet of July 23, 1892.

GENUINE ARTICLES.

WIDE RANGE.

Toilet Soaps. Perfumes. Powders. Dentifrices. Pomades.

SOME SPECIALTIES:

REGISTERED PERFUMES .- "SPINAROSA" -- Gained Gold Medal, Paris Exhibition, 1878-9.

"GLORIOLA"-The Queen of Perfumes.

"EDELWEISS"—The BEAU IDEAL of a refined woman's perfume.

EDELWEISS" PERFUME. "EDELWEISS" SOAP. EDELWEISS" TOOTH PASTE, ETC., ETC.

REAL OLD BROWN WINDSOR SOAP—Unique, Unequalled.

The Lancet says: - "Is desiccated and trebly milled, containing according to OUR OWN TESTS a minimum of moisture, and perfectly free from irritants."

VELVEEN—"A white opaque Soap of Especial Purity."—The Lancet.

TOOTH PASTE—Napoleon Price's,

IN THE WELL-KNOWN BURNT-IN POTS.

MEDAL FOR PURITY, SANITARY INSTITUTE, 1889.

6 PRIZE MEDAL AWARDED FOR PURITY OF SOAPS.

COOK'S PURE TOILET SOAPS

These Soaps are perfectly pure, and will be found in use pleasant to the most delicate and sensitive skin, great care being used in the selection of scents to avoid anything likely to cause irritation.

NO INJURIOUS COLOURING MATTER USED.

SPECIALITIES:- "SAVON DE LUXE"

THE MOST LUXURIOUS SOAP MADE.

Thousands of large samples of this Soap have been distributed, and have met with universal approval. Being made from the purest materials obtainable, it is not only a luxury, but it is economical in use.

COOK'S SUPERFATTED SOAP. "RIVIERA" BRAND.

Specially prepared for Delicate and Sensitive Skins.

COOK'S "HYGIENIC" TOOTH SOAP AND "RIVIERA" SHAVING STICK.

COOK'S ANTISEPTIC SOAP

(THOMSON'S PATENT).

A most carefully conducted set of experiments by eminent members of the Medical Profession has established the fact that this Soap is of the highest value in the treatment of ECZEMA, RINGWORM, SCABIES, FAVUS, and other Diseases of the Skin.

Messrs. E. COOK & CO. have received from Medical Men numerous communications testifying to the success that has attended the use of this Soap, most of which cannot be published; but Messrs. E. C. & Co. have the permission of many of the writers to show the originals to members of the Medical Profession.

CAN BE OBTAINED THROUGH

MESSRS. S. MAW, SON & THOMPSON, OF LONDON,

OR DIRECT FROM THE MAKERS.

Price, in 3-Tablet Boxes, per doz., 12/, Selling Price, 1/6; in \(\frac{1}{4}\)-gross Boxes, 10/6 per box.

Messrs. E. COOK & CO. will, with pleasure, send sample, free of charge, to Medical Men on application.

MANUFACTURED BY

EDWARD COOK & CO., LONDON,

MAKERS OF

COOK'S Celebrated GOLD MEDAL PRIMROSE, MOTTLED, and SOFT SOAPS; also of COOK'S LIGHTNING CLEANSER, and COOK'S HIGH-CLASS TOILET SOAPS.

SPECIALITY:-SAVON DE LUXE.

GOLD MEDAL, PARIS EXHIBITION, 1889.